Effective Engagement Scheduling

Project Submission Due: 6 February 2017

DSS SOUTH CAROLINA
DEPARTMENT *of* SOCIAL SERVICES

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Contents

Synopsis

The Agency's information security (info-sec) audit team has an obligation to perform inspections on all DSS county offices, County Clerk of Court offices, and a number of contracted partner offices located around the state due to a data sharing agreement with the IRS. These audits are on a 3 year cycle and must be performed for compliance to the agreement. There are currently 150 sites that fall under the compliance regulation and must be inspected once within the allowable timeframe/cycle. The model audit should take a total of 259 days from the time an Initial Contact Letter (ICL) is sent to the site until the site has corrected all deficiencies found during the inspection.

The info-sec audit team, during the time of data collection, is a partnership of four auditors ranging in skill sets and years of service. The inspection is generally performed by two auditors, one taking a lead role and the other adopting a reviewer's role. The team ultimately has the responsibility to ensure inspections are performed, but more importantly that security compliance is met at all of the sites.

The function the info-sec team fulfills is a relatively new function for the agency and, as such, many of the processes and workflows are unseasoned to this team's role. The existing processes and workflow are adaptions from the Agency's financial audit team. The Agency's financial audit team has a great deal of success with its processes and workflow and does well to meet customer's expectations for delivering value to the business unit during and after the audit process. It is our goal to continue to meet these

expectations while tweaking and refining the processes and workflow used by the info-sec audit team to meet the demand for security inspections.

Problem/Challenge

A single inspection consists of four defined cycle parts, eight significant milestones, and 30 specific tasks. Unfortunately due to the volume of inspections performed by the info-sec audit team, inspections must overlap and often a primary auditor juggles multiple inspections. This leads to an auditor having multiple inspection projects open at different stages with a cluster of tasks assigned for each engagement during any given week. The challenge is to maximize the use of lead-time and wait-time on all open engagements so that the team can minimize deadline conflict or the need to reschedule important dates/events/milestones with the customer (inspection site) because of scheduling/timeline issues on the info-sec audit team's part. The desired outcome is to have fewer closing conference reschedules due to missed deadlines or tasks not completed on time.

Currently, a list of inspection sites is maintained in Excel. This workbook forecasts two key dates: the inspection date and inspection findings conference (IFC) date. Task and milestone scheduling are calculated from these dates. The team uses an Excel worksheet to populate the task list for the inspection project. Every week, a manual process is used to gather the tasks and compile a collected task list for the team. Tasks not completed from the week(s) before are carried forward to the new weekly task list.

There are a few self-inflicted constraints to the current system. In general, the team goes out for inspections on either Tuesdays or Thursdays and reserves Monday and Wednesdays for closing conferences (IFCs). Fridays are usually considered an in-the-office work day to finish up the assigned weekly tasks. Inspections and IFCs are, as a rule, not scheduled the week of state holidays nor the last two to three weeks of December to reduce scheduling conflicts. However, these are guidelines and any available date may be used when needed to reschedule events.

A successful outcome for renovating the info-sec audit team's process and workflow will be to provide value to customers by dividing and assigning work segments into manageable fragments, provide timely deliverables in a meaningful format, and schedule project events in a way to stagger project and task assignments to auditors. The primary goal is to reduce the number of Inspection Findings Conferences (closing conference) reschedules due to overdue tasks.

Data Collection

The original idea was to account for inspections conducted in a single fiscal year (July to June)[1]; however, due to the audit lifecycle, which on average takes about 2 ½ to 3 months to complete, it was decided to track the inspections that have inspection dates within the fiscal year. This caused the data collection process to take several additional

[1] The fiscal year evaluated is July 2015 through June 2016. Unfortunately, the October 2015 flood impacted scheduling and meeting deadlines. The info-sec audit team was reassigned duties October – December 2015. Additionally, a team member was permanently reassigned during this timeframe. Thus, consideration for this large gap in time and loss of a team member is admitted during data analysis.

months to capture the remaining data elements for the last several engagements started during the fiscal year.

One of the first data elements is the process and workflow for an inspection engagement. A flowchart[2] is created to identify and map the process. In addition, a RACI chart[3] was compiled to identify individual roles and responsibilities for the inspection engagement. The RACI chart is used for guidance during the inspection process. The info-sec audit team compiles a problem analysis diagram[4] for known issues for completing tasks or the need to reschedule events and milestones.

The following data points are identified during the discovery/planning stage of the project. The data is collected from the weekly task lists and by directly identifying dates captured during the engagement. The data is imported to SQL Server and queried against in order to produce summary data that calculates the required data point.

- Determine the average number of open engagements for the team per week
- Determine average number of open engagements per week & per team member: Todd (Auditor1), Sherri (Auditor2), Stephen (Auditor3), and Jonathan (Auditor4)
- Identify the average number of tasks assigned to a team member during a single audit lifecycle
- Identify the average number of tasks assigned during each phase of the audit lifecycle

[2] See the attached "Wilkins - Process Flow Charts" document for further information
[3] See the attached "Wilkins - RACI Chart" document for further information.
[4] See the attached "Wilkins - Problem Analysis Diagram" document for more information.

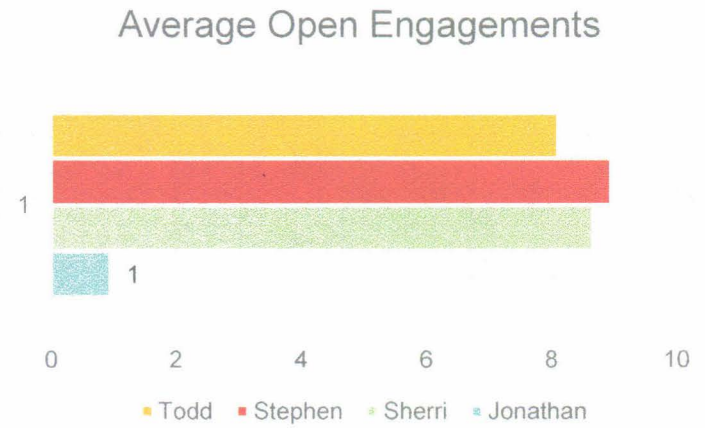
- Identify the average task time assigned during each phase of the audit lifecycle
- Determine the frequency (how often) a team member is assigned a new audit engagement
- Identify average number of days between all milestones
- Identify all tasks including time to complete and any dependencies or prerequisites to complete during an audit lifecycle

Data Analysis

For the purpose of study, data is collected for 18 months. This period of time is determined by evaluating all site inspections with inspection dates for FY2016 and establishing when the first and last assigned tasks are completed. The tasks under review are the defined tasks that are assigned and tracked by the process in place during the 18 month period. There are a total of 30 unique tasks assigned per inspection engagement: 16 assigned during the Engagement Process, 6 assigned during the Post-Engagement, 6 assigned during the Conference Processes, and 2 during the Follow-Up Process. As a result of the study, additional tasks are identified.

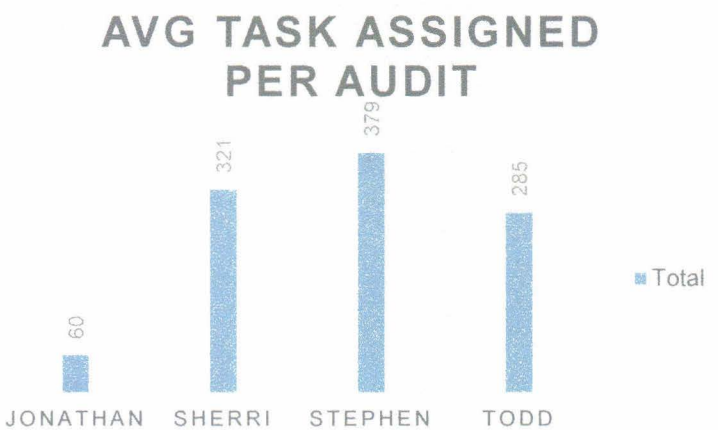
Average Open Engagements

A review and average of the open engagements per week shows the team member's averages 8/9 open engagements at any given time. The high water mark occurs in week 50 (May 23 – 27) with 50 open engagements and the team members holding the following open engagements: Todd – 13, Sherri – 17, Stephen, 18, and Jonathan 2. The team on average has 27 open engagements during the data collection period. This indicator is utilized as a Key Risk Indicator (KRI) showing how many engagements an auditor has open at any given time. A threshold should be evaluated and applied for effectiveness.



Average Task Assigned per Audit

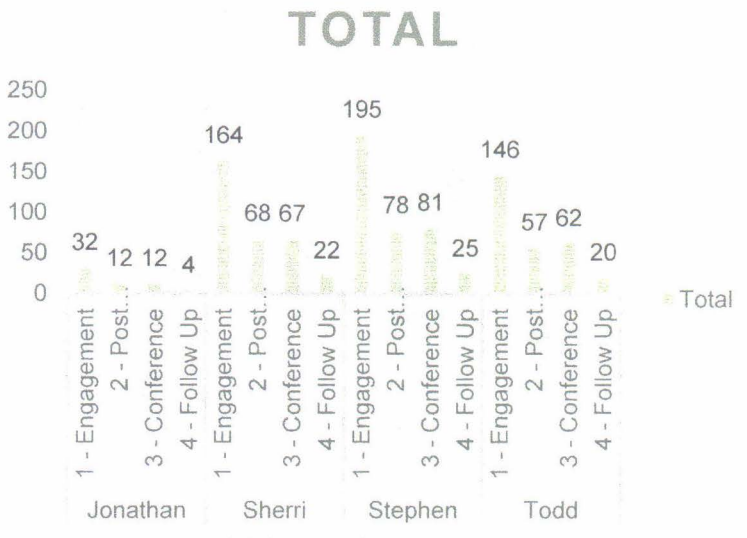
The next study evaluates each inspection engagement and averages for all tasks assigned to the auditor during the engagement. What this suggests is that although, on average, the three main auditors have an average of 8/9 open engagements at any one time, tasks may stack up due to over assignment of projects or a delay in completing assigned tasks. This number may only



indicate a potential issue and is a Key Risk Indicator (KRI). This needs to be aggregated with other indicators to have more value.

Average Task Assignment per Audit by Audit Cycle

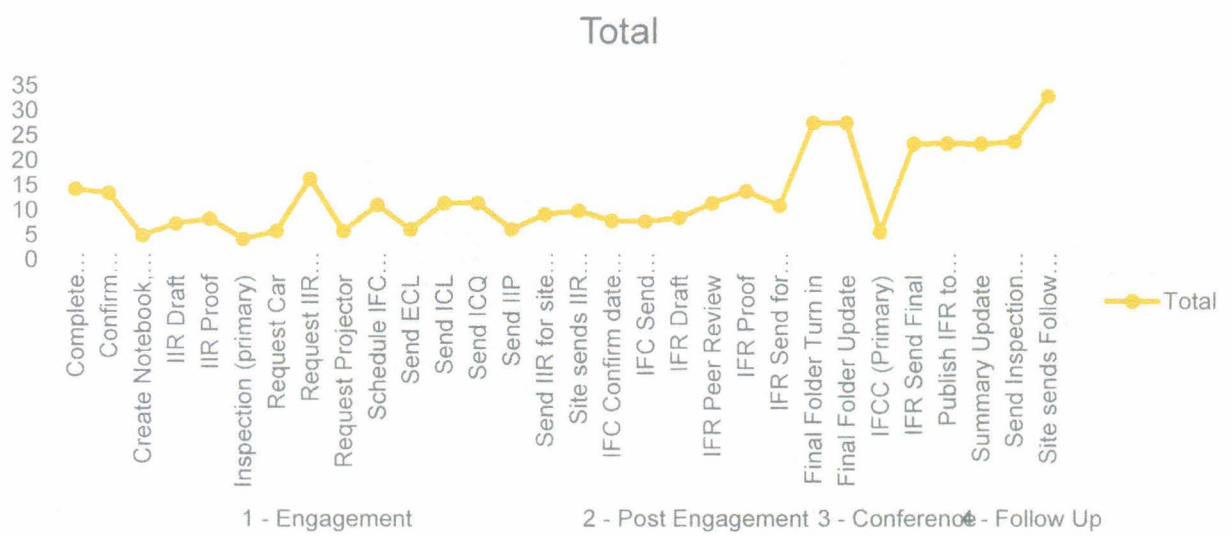
By only evaluating the number of tasks assigned during the audit life cycle, there isn't a clear determination of what may cause the audit project to slow down or cause the number of tasks assigned to lag. Evaluating the task assignment by the audit life cycle begins to show where and when the bulk of tasks are assigned during the engagement. Over half of the tasks are assigned during the Engagement process.



This a cumulative number of tasks for a specific engagement and any other tasks for open engagements. This may indicate that the Engagement process is the most demanding of the processes in terms of juggling projects and assigned tasks. This is leveraged as a KRI, but a threshold must be determined for peak performance. This indicator along with the previous two will provide insight for emerging deadline and timeline collapse.

Average Task Life Span

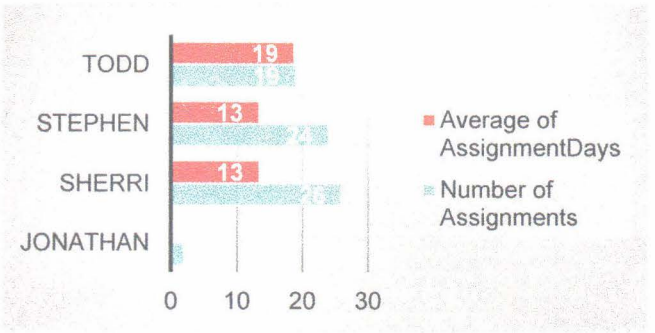
The most logical stepping stone is to now evaluate the tasks and determine their life-span throughout the audit life cycle. The limitation is that the tracking system tracks by weeks and not days. A task assigned and completed in a single day would track the same life span of a task assigned on Monday and completed on Friday – one week. The first note is that the tasks are in alphabetical order within the proper process. It is ascertained that while the bulk of tasks are assigned during the first process (Engagement), the bulk of time weigh-downs are found in the last two processes (Conference and Follow-Up[5]). This indicator measures performance based on task life-span based on average days to complete.



[5] Knowing the process, during the last two phases the focus of work product begins to shift from the auditor to the inspection site for response and corrective actions. The documented/assigned tasks do not normally take a lot of time, but the communication that takes place between the auditors and the site can consume hours not accounted for within the project.

Team Assignment Frequency

One obvious place to look for abnormality is the frequency an auditor is assigned a new inspection site. The inspection dates are traced for each auditor respectively looking to determine the number of days between[6] inspections for the auditor. For the purpose of the study, Jonathan's (Auditor 4) numbers are not a factor for analysis. This chart shows the number of inspections assigned to the auditor and the average number of days between assignments. The number of inspections range from 19 to 26 with 13-19 days between assignments. The rate is roughly every 2-3 weeks an auditor is assigned a new inspection project. This indicator measures the risk of over taxing the auditor with engagements too frequently.



Average Days between Milestones

A slightly different view of the task data is to evaluate the milestone completion dates. Unlike tasks, the milestone dates are actual dates when the milestone is reached. This data is manually gathered by reviewing each inspection file to collect dates from emails and other scheduled events during the audit cycle. To conserve space on the graph, the milestones are represented as MS1..MS8. These correspond to the following milestones:

- MS1 – Inspection

[6] Due to the 2015 flood, all prospective engagement assignments were suspended from October thru December. Most of these sites are assigned new dates within the fiscal year; however, a handful fell over into the next fiscal year.

- MS2 – Inspection Site Review
- MS3 – Inspection Report Issued
- MS4 – Inspection Report Signed and Returned
- MS5 – Inspection Findings Report Site Review
- MS6 – Inspection Findings Conference
- MS7 – Inspection Findings Report Issued
- MS8 – Site Follow Up

The greatest deviation appears between Inspection Finding Conference (MS6[7]) and Inspection Findings Report Issued (MS7). However, what is most alarming are the cumulative days between the Inspection Site Review (MS2) and Inspection Findings Report Site Review (MS5). The cumulative average is 26 days. This impacts the overall flow of the inspection project because the inspection report being signed and returned (MS4) closes out the first half of the engagement with all tasks and milestones tied to the inspection date. The second half of the engagement process is linked to the

[7] Once the conference concludes, the inspection site begins the process of addressing deficiencies. The first step is for the inspection site to determine the best cost effective and efficient solution to meet the security control requirement. Depending on the site, this process may require escalation to acquire approval for funds and other resources. Third-party sites often run into a delay at this stage which postpones issuing the Findings Report with an agreed upon corrective action. This delay has little impact on meeting deadlines and milestones but does impact the over-all length of time an engagement remains active by pushing the follow-up process further out.

Inspection Findings Conference (MS6). The hand-off between the two halves occur when a signed inspection report is received and the inspection findings report is sent for review[8]. This also gives evidence for tasks in the Post-Engagement process lingering and inflating the total number of tasks present during the engagement process for other engagements. Of the indicators used, this risk indicator is the most useful. This KRI measures the most specific and accurate data element available, the actual time between key events of the project.

Problem Analysis Diagram

The next step is to analyze all of the collected data including the diagrams created early on in the process. The tasks that linger on and not completed timely generally fall under "Method" and "Man" causes[9]. The common denominator of the causes in question boil down to communication and education. The causes that surface are: "Method - Cause: Response time is too long and next steps gets lost between cracks," "Method - Cause: Our process isn't communicated well outside of audit division," "Man - Cause: Customers do not understand their responsibility for compliance," "Man - Cause: Customers are untrained to our processes and tools," and the top cause is "Man - Cause: Customers do not respond to evidence or approval/sign-off requests timely."

Summary

Evaluating the collected data as a whole and not as individual data points, it appears that the assignment of tasks and expected completion time during the engagement

[8] Early in the program, the Inspection Findings Report was sent out before receiving the signed Inspection Report and it was discovered that a control mechanism was needed to ensure the report was returned. The signed inspection reports are the evidence submitted to the IRS showing the inspections occur.
[9] By all accounts, Mother Nature causes, specifically the 2015 flood, have the most devastating impact on the engagement process.

process is too restrictive and optimistic. This, coupled with customer's limited knowledge of their responsibility for completing certain tasks timely, lead to missed deadlines and the need to reschedule key events and milestones. A solution that focuses on enhancing these segments of the life cycle will be crucial for adding value to the overall process.

Implementation Plan

It seems counterintuitive to add more tasks and events to the "Engagement" process because this phase already hosts the most tasks and also has the most tasks carried past expected timelines. However, the plan is to add tasks and events which engage the audit site sooner, add an element for education, training, and communication for the audit process, and allow the audit process to start sooner and end later. The purpose is to raise the site's level of awareness of the process, actively engage them sooner, and educate them about task ownership.

Action Steps

There are several action steps to implement a comprehensive plan which will increase the communication and education processes of the audit lifecycle. The first step is to consider what aspects of the audit process need further explanation and determine when the appropriate touch points are for the customer. Next, develop a comprehensive Gantt chart which includes the communication and education tasks. All the while, curriculum and souvenirs should be developed with the customer in mind. The curriculum and souvenirs should clearly layout 1) the key dates such as inspection and closing conference, 2) required documentation requested from customer such as

policies, system overview, and user lists, and 3) milestones and deliverables such as final inspection and findings reports.

Timeline

The project time line will take several weeks to define and develop the PowerPoint presentation and souvenirs. Week 1, whiteboard ideas for critical components to communicate. Week 2, prioritize components from week 1, get IAD Director approval, and begin developing talking points. Week 3 – 5, finalize talking points, share with IAD Director and get feedback, develop presentation and souvenirs. Week 6 – 7, finalize presentation and souvenirs, share with IAD Director and get feedback. Week 8, update based on IAD Director's feedback. Week 9, begin using newly created curriculum and souvenirs.

Costs

There are no upfront costs to consider other than staff time to develop presentations and souvenirs for the audit process. Office products already licensed will be leveraged to develop needed deliverables. However, the single audit lifecycle is expected to grow to accommodate the communication and education efforts. There may be hidden costs to acclimate the new time line. Additional staff time will need to be used updating currently used spreadsheets and souvenirs to accommodate new lifecycle and tasks.

Potential Obstacles

The biggest obstacle based on past experience with customer base will be keeping them engaged in the process and getting them to recognize their accountability and

responsibility for protecting DSS information shared with them based on the contract. The best way to keep them engaged is by including the DSS Business Manager in the correspondence and at times letting the correspondence originate from the business program – used sparingly and only when necessary. The goal for the curriculum will be to help educate the customer of their accountability and responsibility for maintaining security compliance for the information shared and entrusted to them.

Potential Resource

There are tools already in place that can be utilized for developing the curriculum and souvenirs. Additionally, there are staff members from the business area already engaged at some level in the audit process. These key individuals may need to be leveraged at critical times to engage and help hold the customers accountable and responsible for maintaining compliance. The contract and the procurement process may be valuable resources for reminding the customers of their legal obligation for maintaining compliance.

Communication with Stakeholders

The most visible stakeholder in our audit process is the business area which is held ultimately accountable for the compliance and security of the information owned by the business area. The business area is already aware that the process is being re-evaluated for effectiveness and given an opportunity to provide feedback into the current process. Once ideas are white boarded and prioritized, the business area should be brought into the discussion and allowed an opportunity to shape the talking points to drive home the business goals and values for sharing the information. Other

stakeholders (Chief of Staff and Office of Investigations) will have newly developed timelines, curriculum and souvenirs shared with them via email.

The current processes and timelines will need to be adjusted to accommodate the new lifecycle. The main schedule in Excel will need to be re-evaluated to make sure that extending the time frame doesn't impose issues on the scheduled inspection and tentative findings conferences. Next, the generic task list will need to be updated to account for the new schedule and tasks. The templates used for Initial Contact, Contact Questionnaire, Engagement Confirmation, Inspection Plan, Inspection Report, Findings Report, Evaluation Matrix, and Check List will all need to be evaluated for impact and changes. Finally, the shared Outlook team calendar will need to be updated where necessary to accommodate changes to timeline.

Evaluation

This study evaluated several performance and risk indicators which gives a pinhole view into the Info-Sec Audit's operation. The Info-Sec team "owns" the data and should continue to collect audit project data including the task and milestone data. Moving forward, the task list process should be revamped to collect the date assigned and the actual date completed. An additional administration task will be to compile the task data weekly. In like manner, the milestone data gathering process will need to be defined and assigned. Both task and milestone data will be compiled leveraging Excel[10]. The

[10] See the attached "Wilkins - Performance and Risk" Excel workbook to see how the data collected will be analyzed. Note: dashboard data is fictitious and used only to verify and validate dashboard functionality.

workbook contains project, task, and milestone data pertaining to ownership along with expected and actual realization dates. Power pivots and graphs are used to create a dashboard with visualization of the indicator data[11].

[11] See the attached "Wilkins - Performance and Risk Dashboard" document for a screen shot of the dashboard.

Appendix

Problem Analysis Diagram

RACI Chart

GANTT Chart

Process Flow Charts

Performance and Risk Dashboard

Problem Analysis Diagram

RACI Chart

Task Summary	Internal Audit Division					Customer		Stakeholders		
	Director	Administrator	Team Lead	Primary Auditor	Secondary Auditor	Management	Work Force	IRS	DSS Exec Management	CISO
Create 3 Year Calendar	C	I	R/A	I	I			I	I	I
Assign Auditors			R/A	I	I					
Create & Send Initial Contact			A	R		I			I	I
Folder Documentation			A	R						
Respond to Initial Contact				I		R/A				
Reschedule/Set Inspection	I		C	R/A						
Create & Send Confirmation	I	I	A	R		I				
Folder Documentation			A	R						
Request Site Information				R/A		I				
Send Site Information				I		R/A				
Folder Documentation			A	R						
Review Site Information				R/A						
Request Car		I	I	R/A	I					
Prepare for Engagement				R/A						

Perform Audit/Inspection	I	I	A	R	R	R	R		
Proof Inspection Report (IIR)		R	I	A	I				
Send IIR to Site for Review	I		I	R/A	I	I	I		
Review/Respond to IIR			I	I	I	R/A	C		
Sign & Publish Final IIR	R		I	R	I	R	I		
Folder Documentation			A	R					
Analyze Collected Evidence			A	R	R				
Create Findings Report (IFR)			I	R/A	I				
Auditor Review IFR	C/I		R/A	I	R				
Proof IFR		R	I	A	I				
Send IFR to Site for Review	I	I	I	R/A	I	I	I	I	I
Schedule Findings Conf (IFCC)			I	R/A	I	C	I		
Send IFCC Invite	I	I	R/A	I	I	I	I	I	I
Findings Conference			A	R	R	R	I		
Respond to IFR			A	I	I	R	I		
Publish Final IFR	I	I	I	R/A	I	I	I	I	I
Folder Documentation			A	R					
Create & Turn In Final File	I	I	R/A	I	I				
Request Updates on Findings	I		A	R	I	I	I	I	I

Send Updates on Findings	I	I	I	I	R	C	I	I
Folder Documentation		A	R					

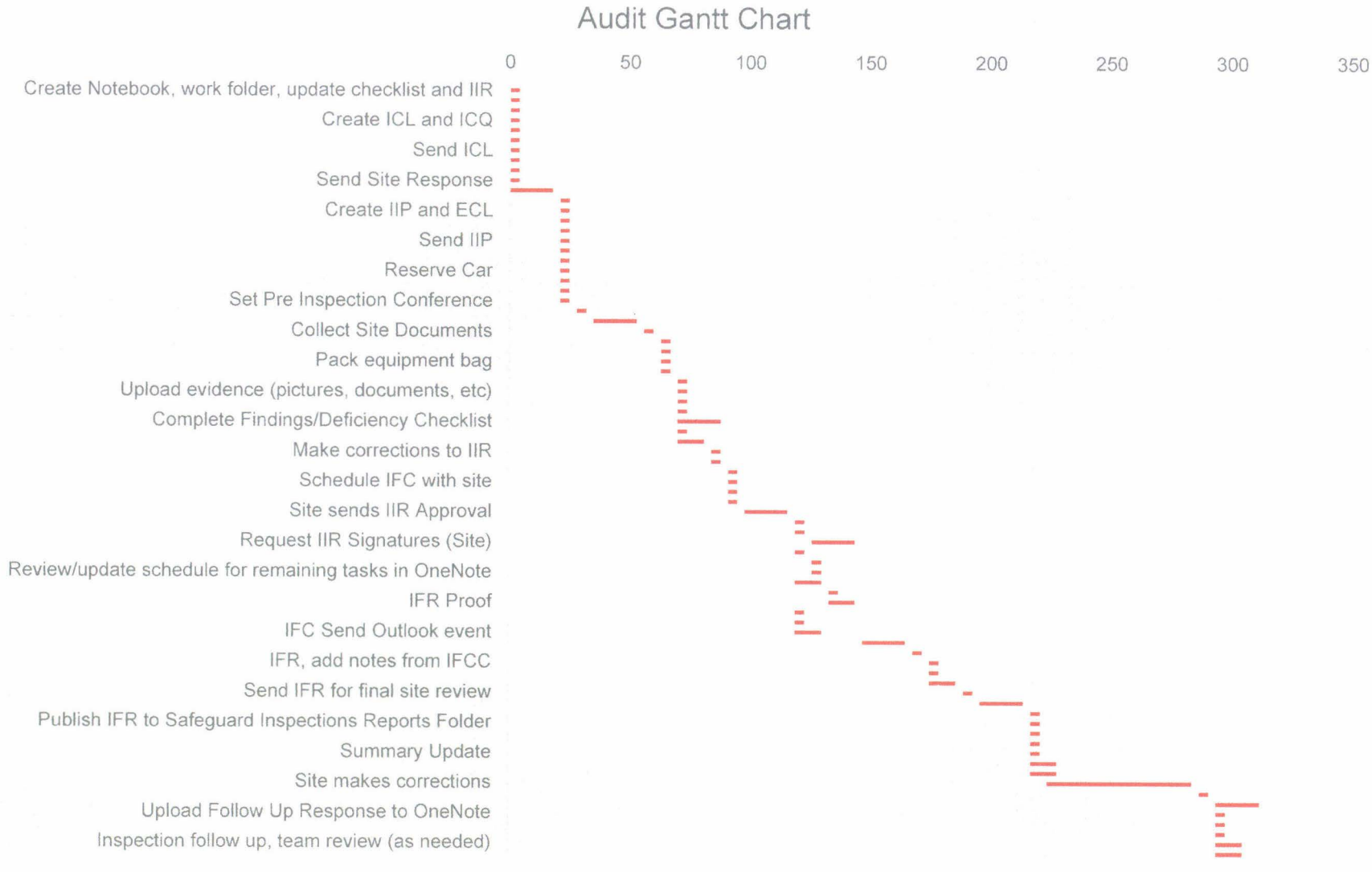
R: Responsible for doing the step

A: Accountable for the step

C: Consulted with before the step

I: Informed when the step is completed

Audit Gantt Chart



Process Flow Charts

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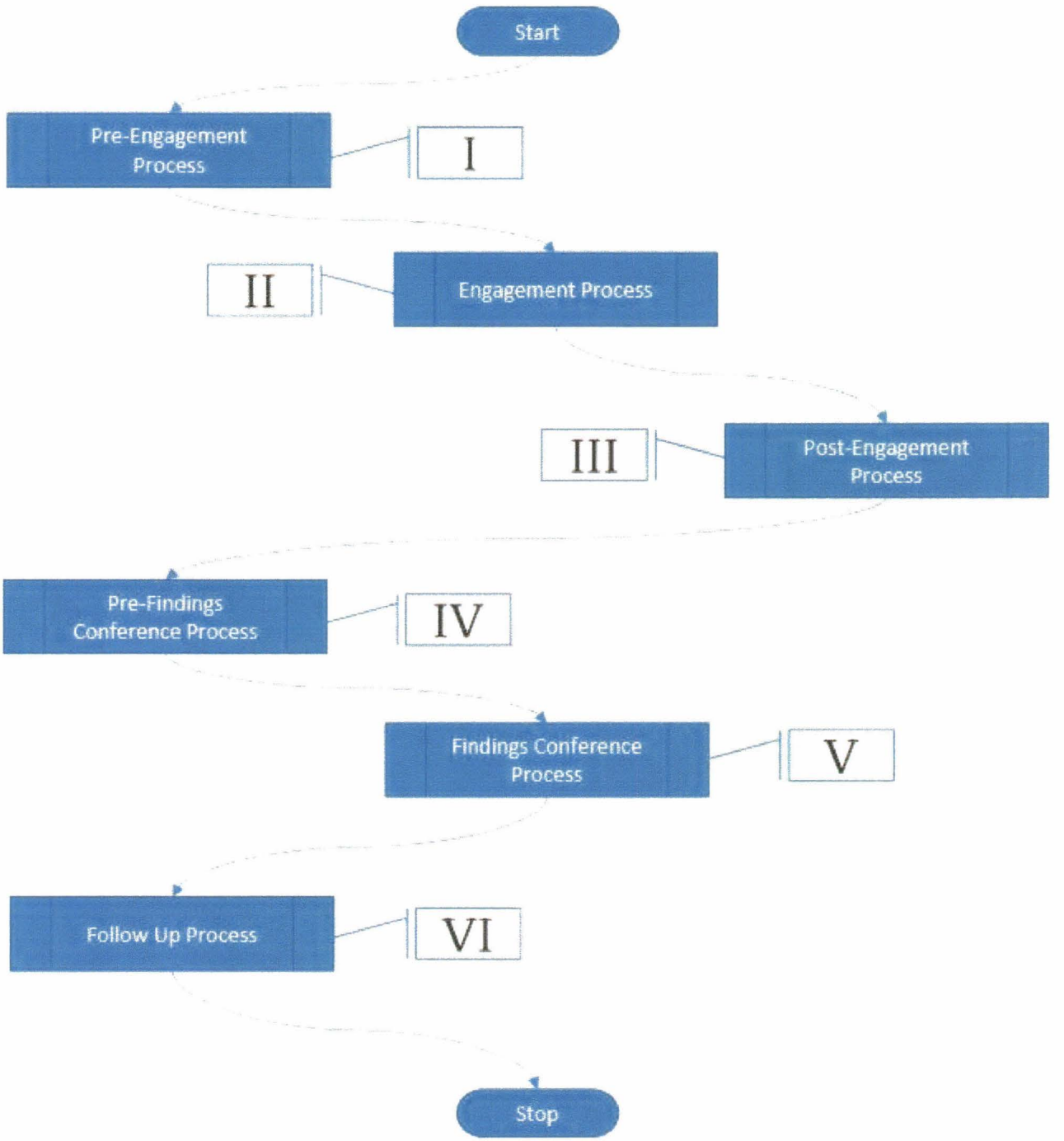
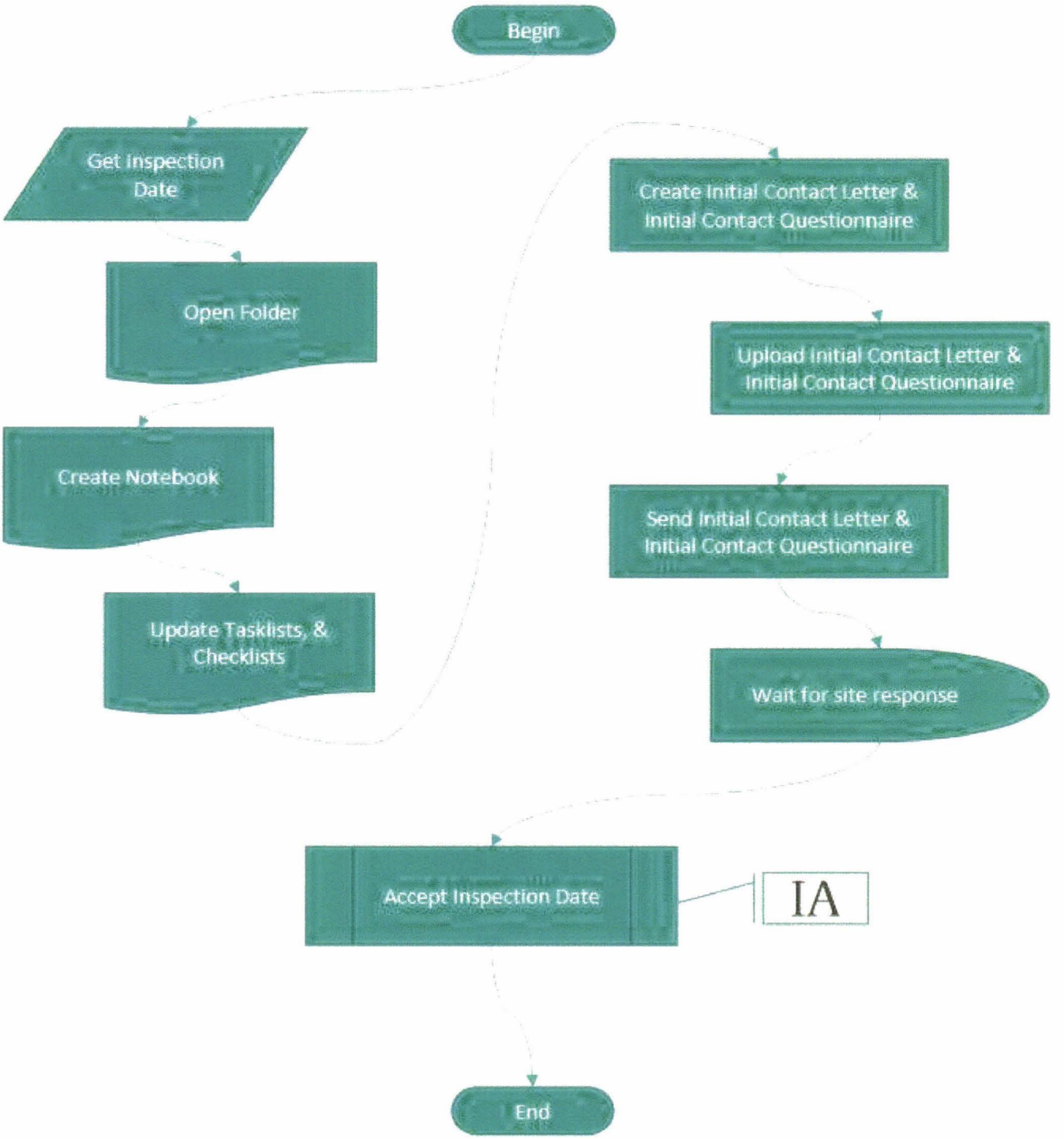
Audit Process

Overview



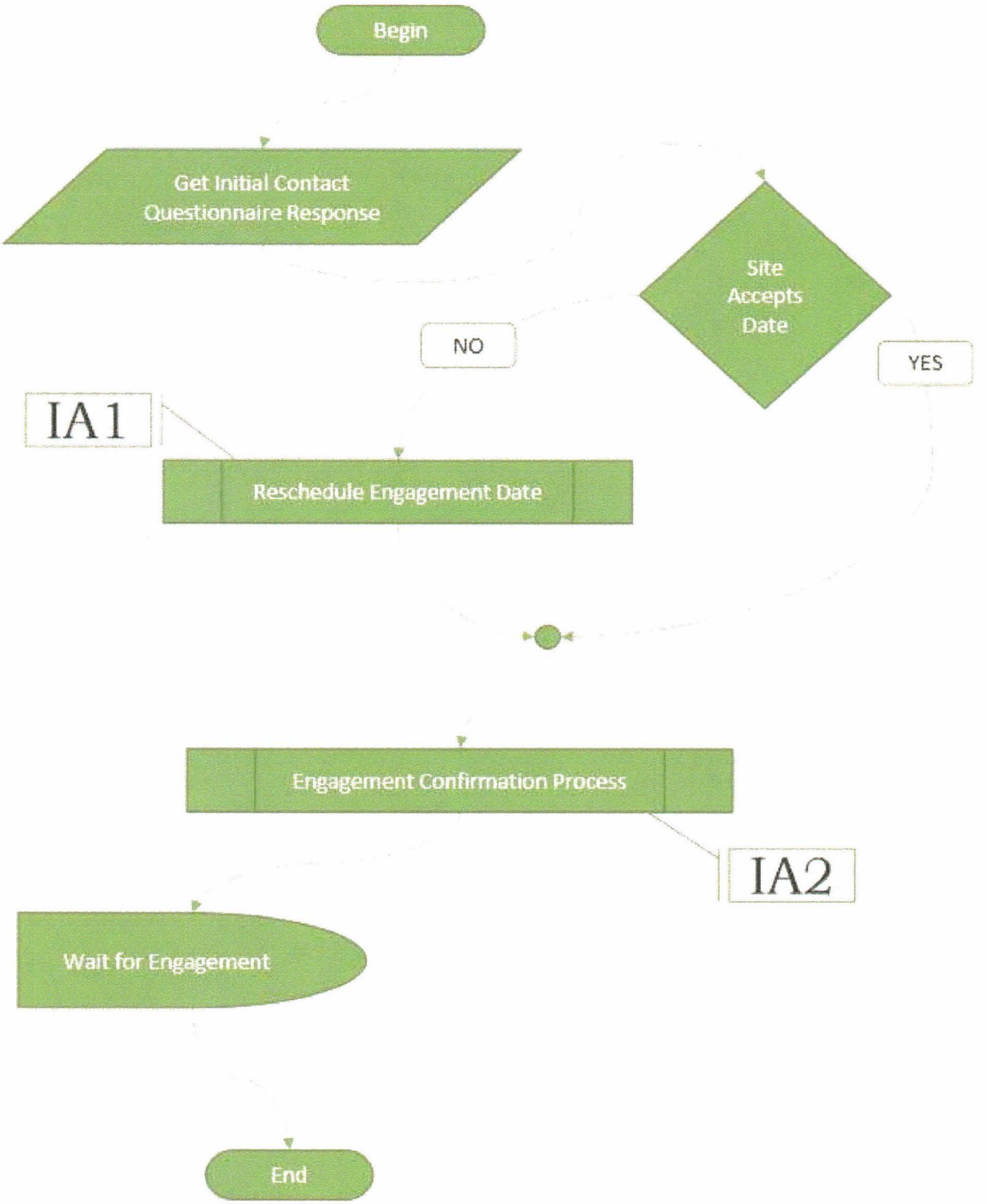
Audit Process I

Overview → Pre-Engagement



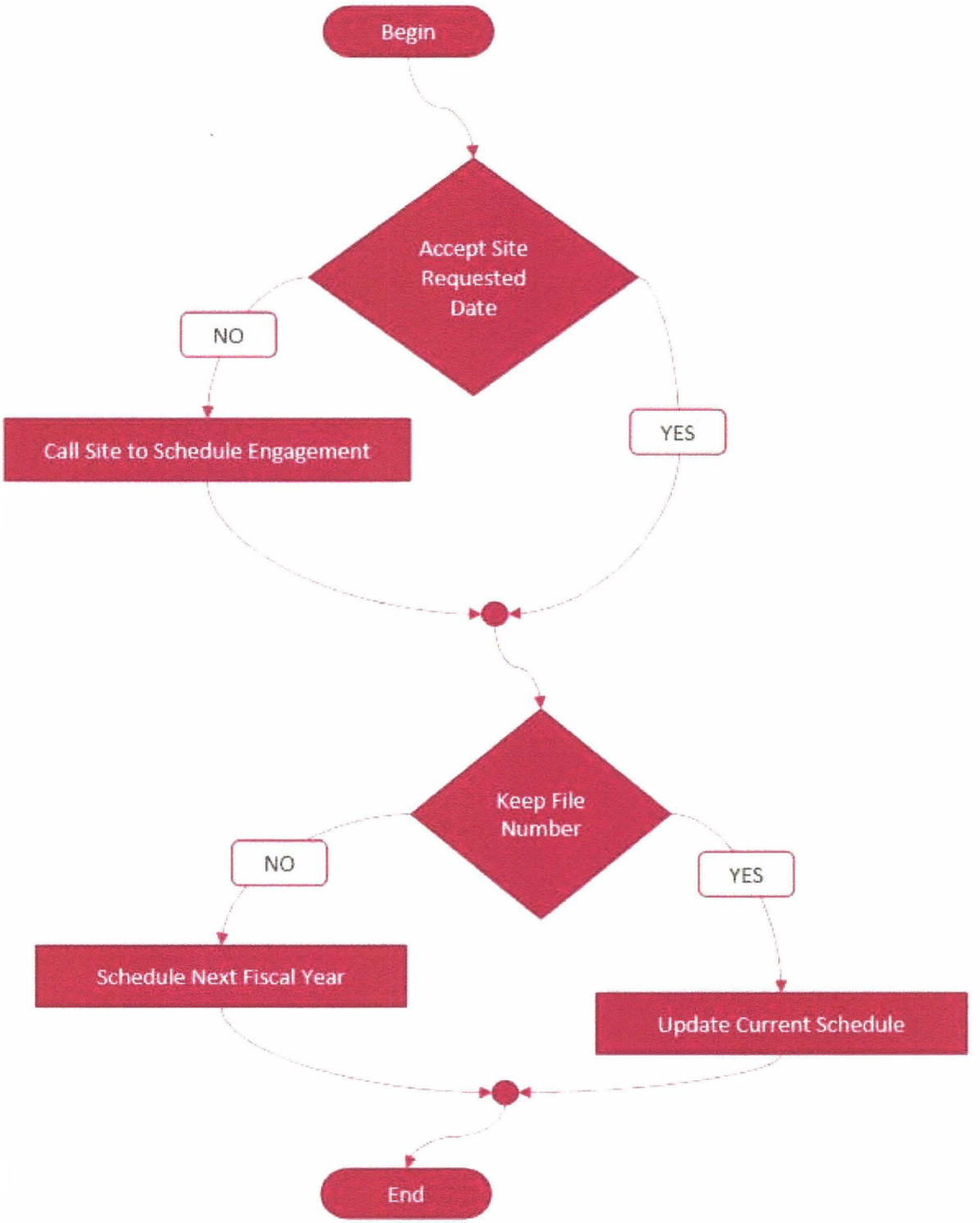
Audit Process IA

Overview → Pre-Engagement → Accept Inspection Date



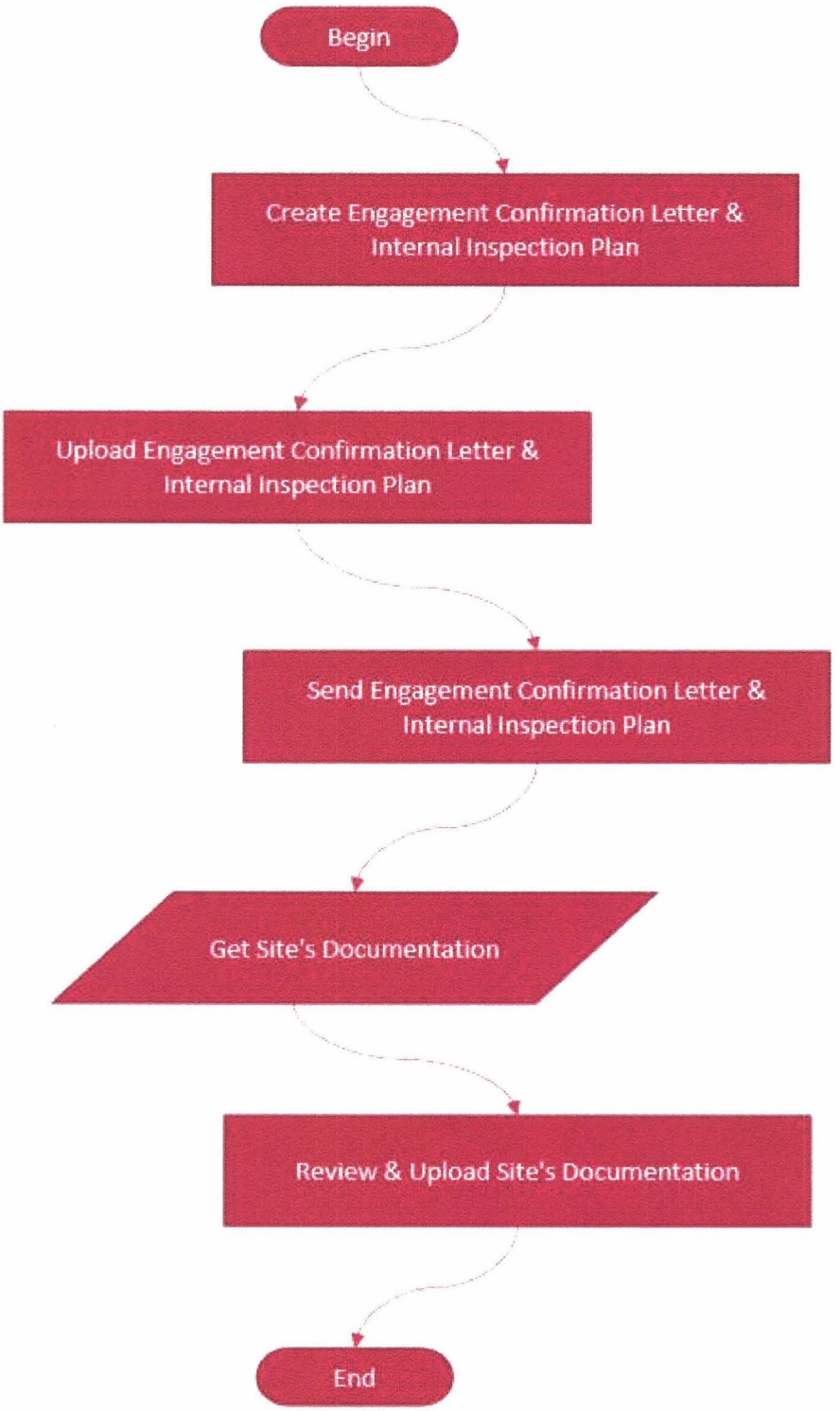
Audit Process IA1

Ove... → Pre... → Acc... → Reschedule Engagement Date



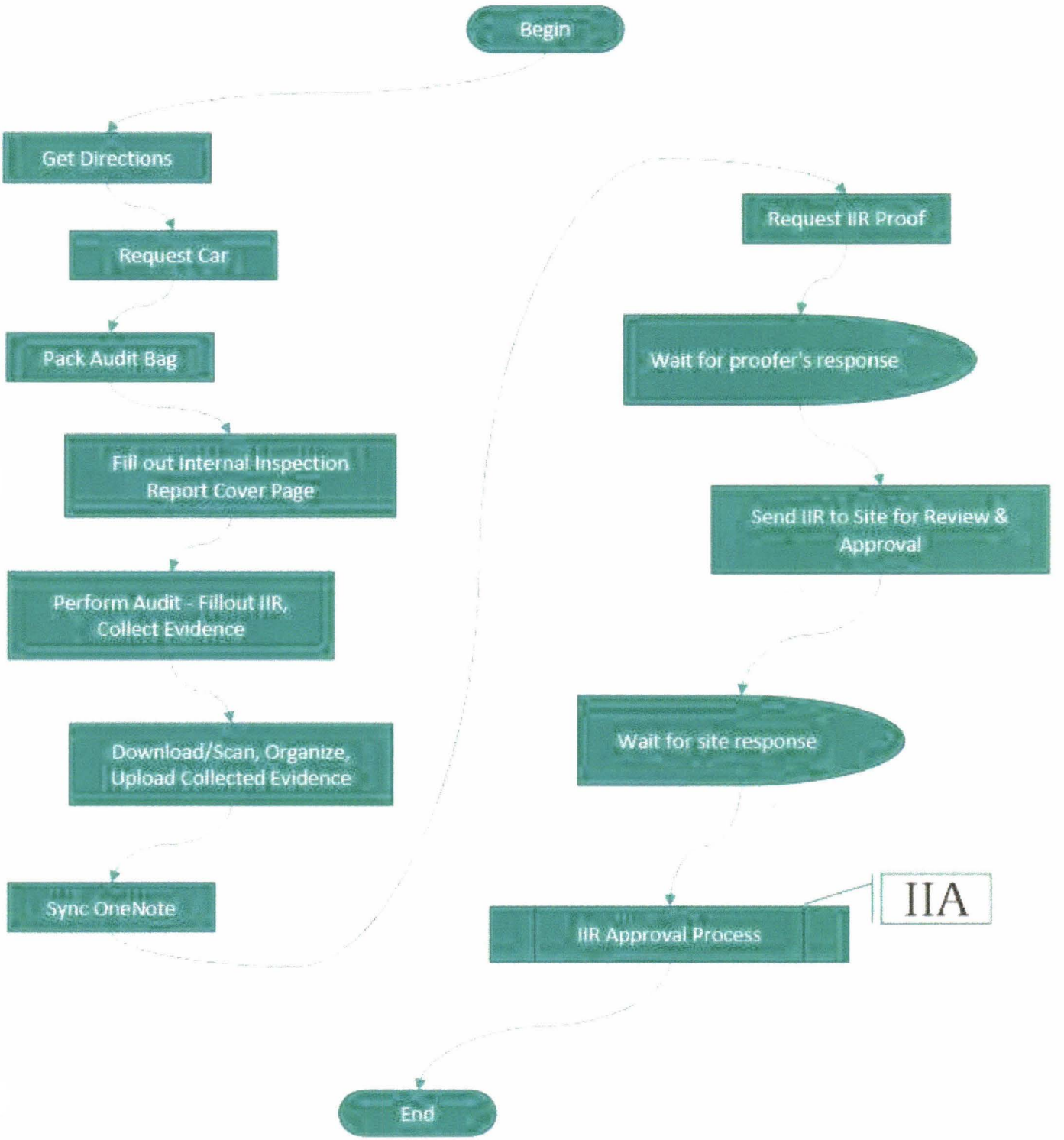
Audit Process IA2

Ove... → Pre... → Acc... → Engagement Confirmation



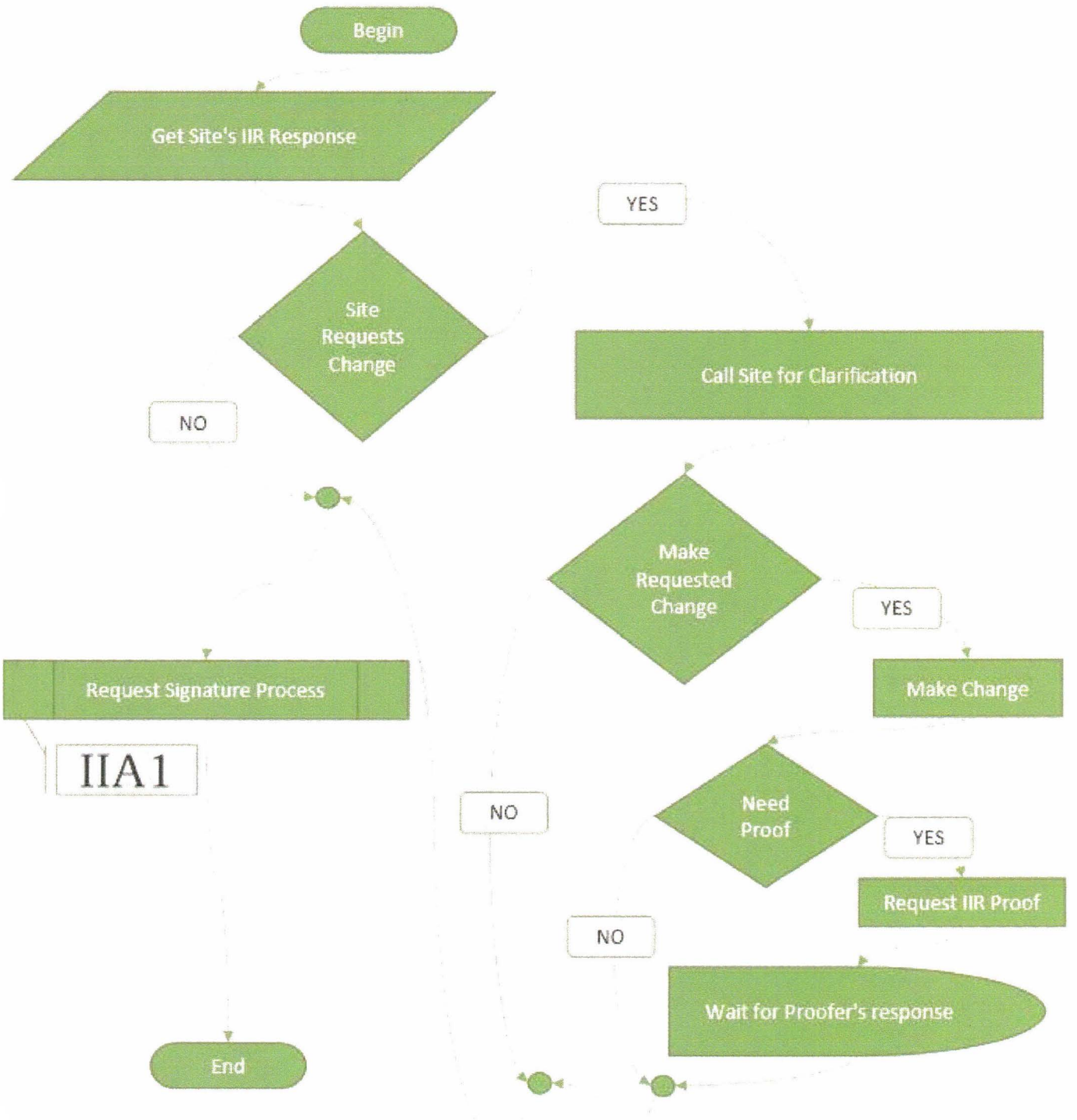
Audit Process II

Overview → Engagement



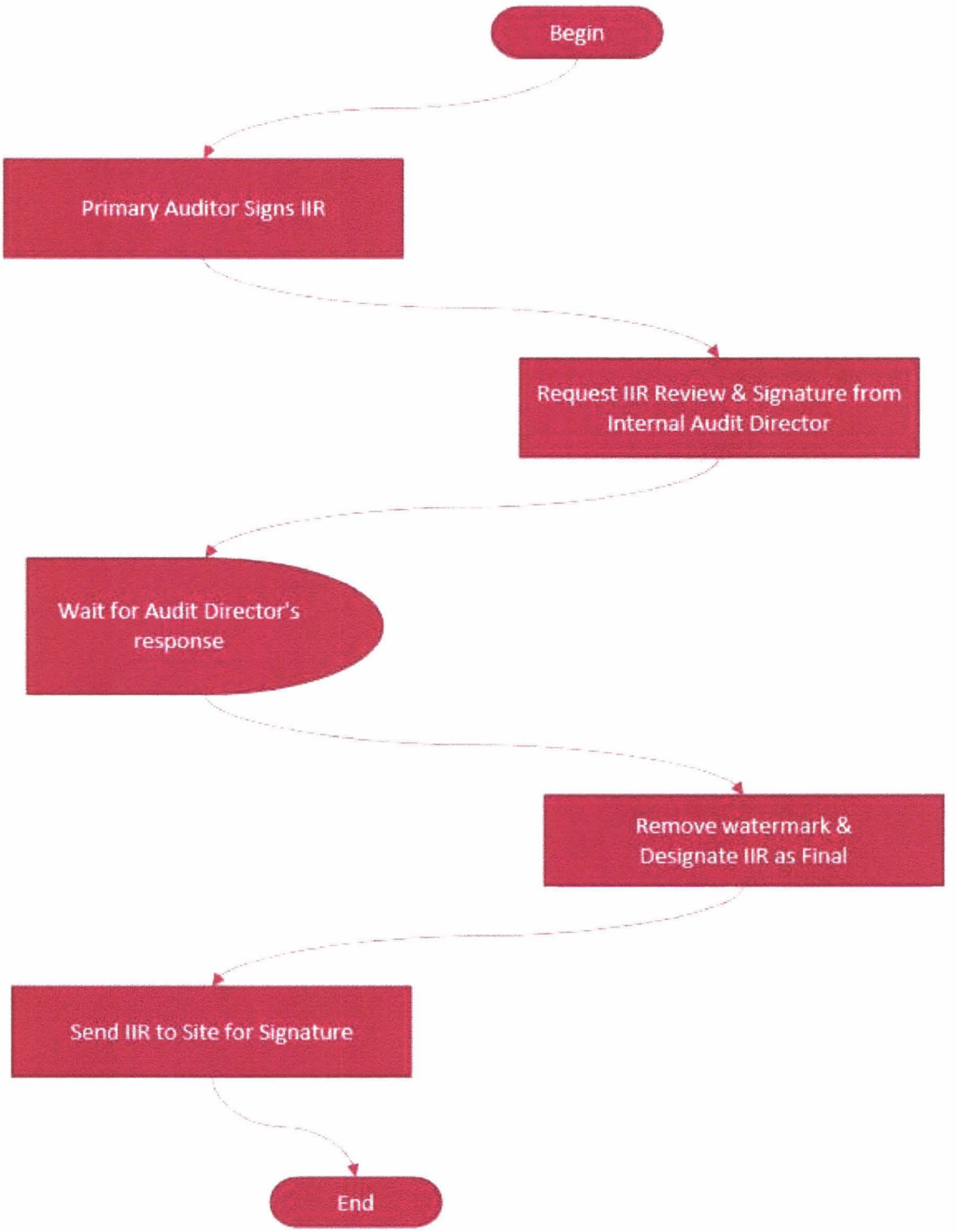
Audit Process IIA

Overview → Engagement → IIR Approval Process



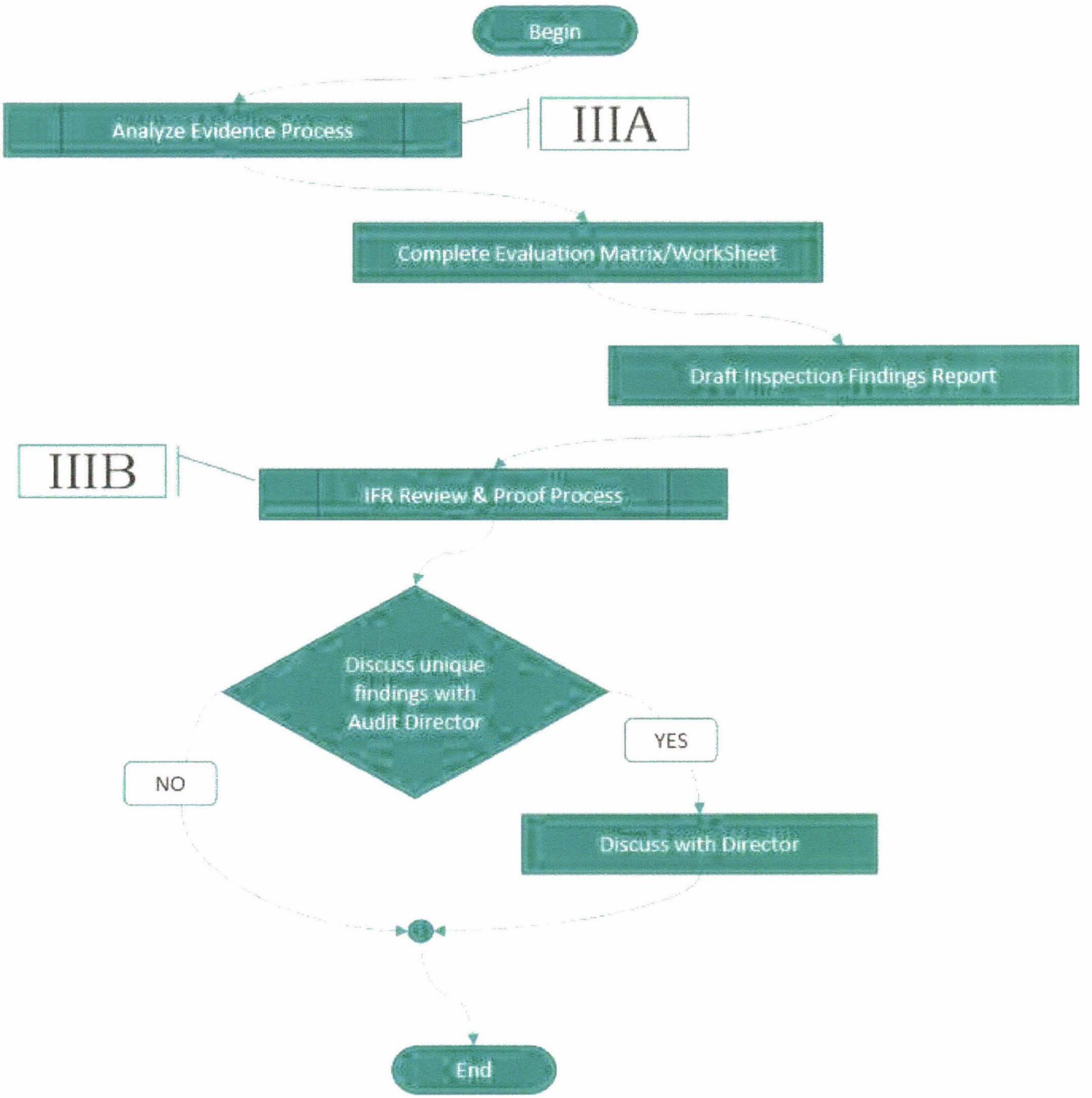
Audit Process IIA1

Ove... → Eng... → IIR... → Request Signature Process



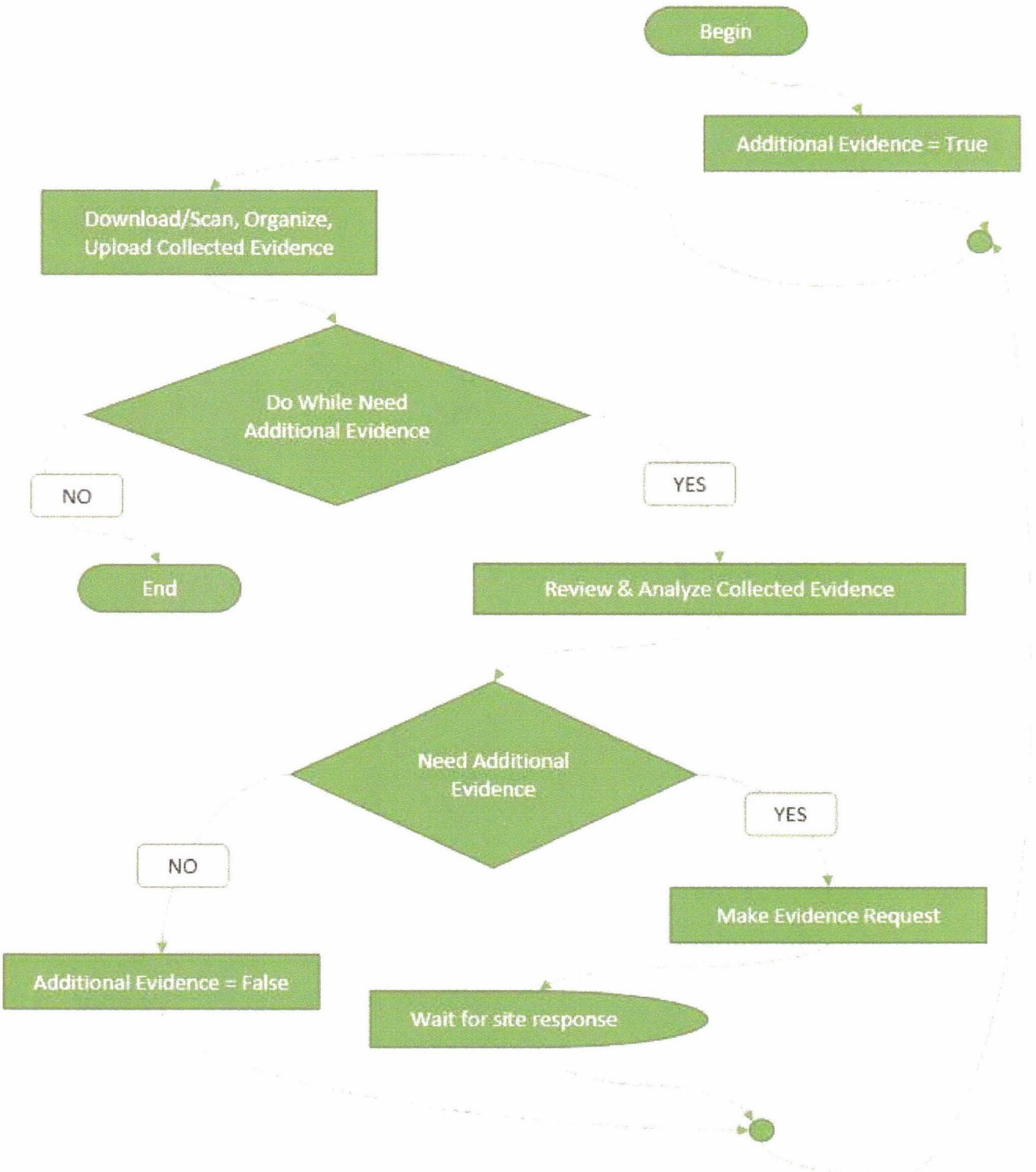
Audit Process III

Overview → Post-Engagement



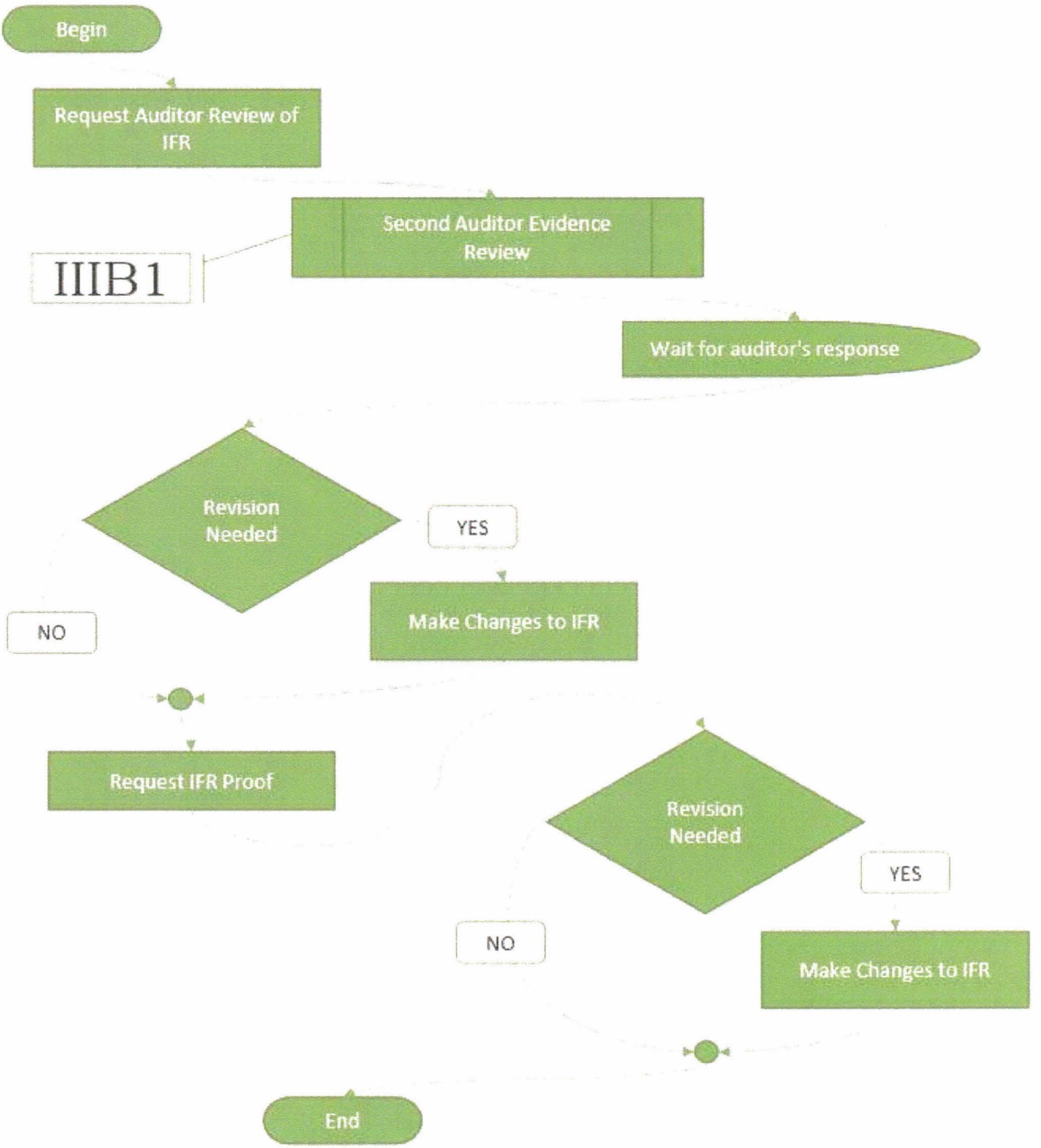
Audit Process IIIA

Overview → Post-Engagement → Analyze Evidence



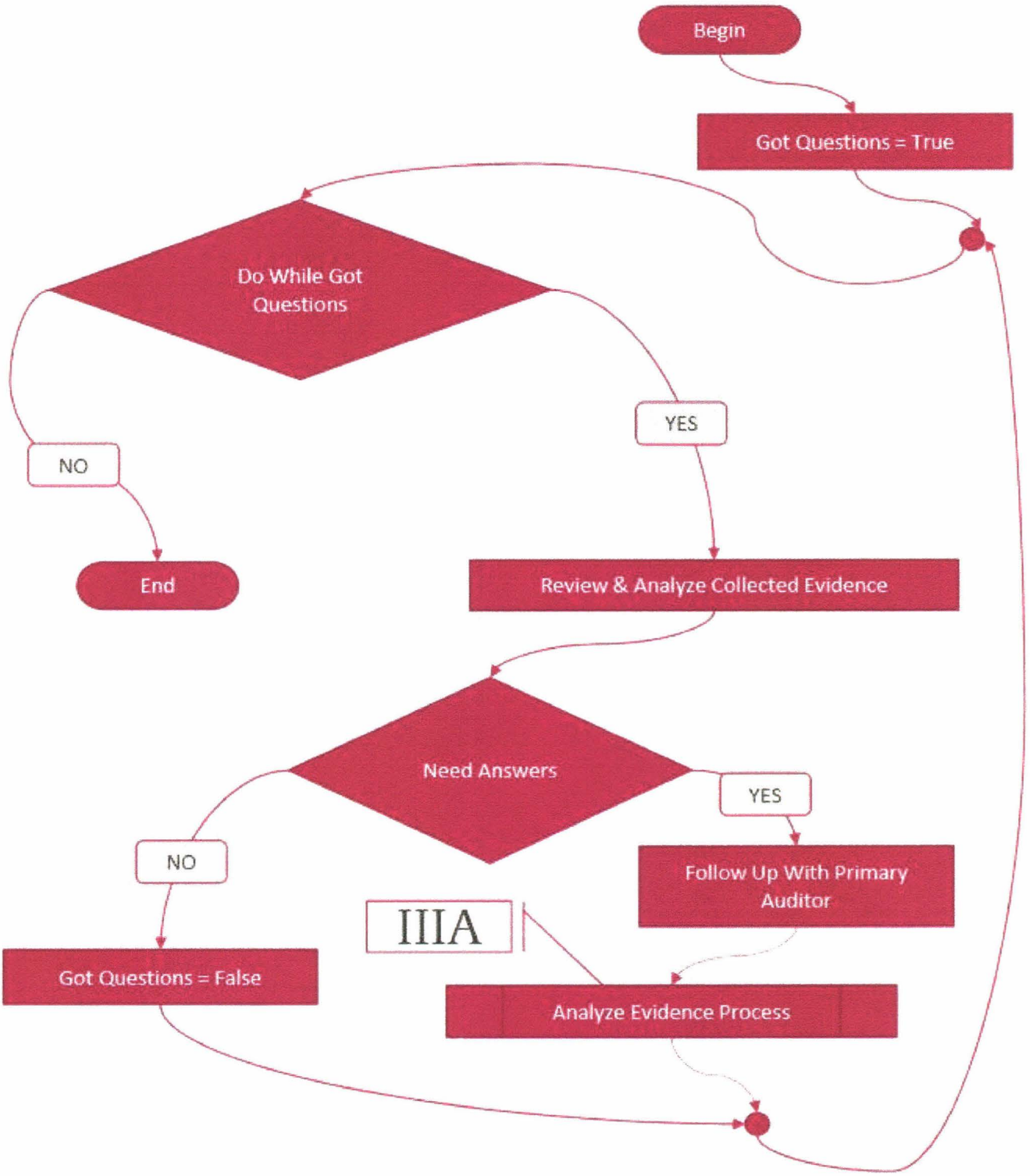
Audit Process IIIB

Overview → Post-Engagement → IFR Review & Proof

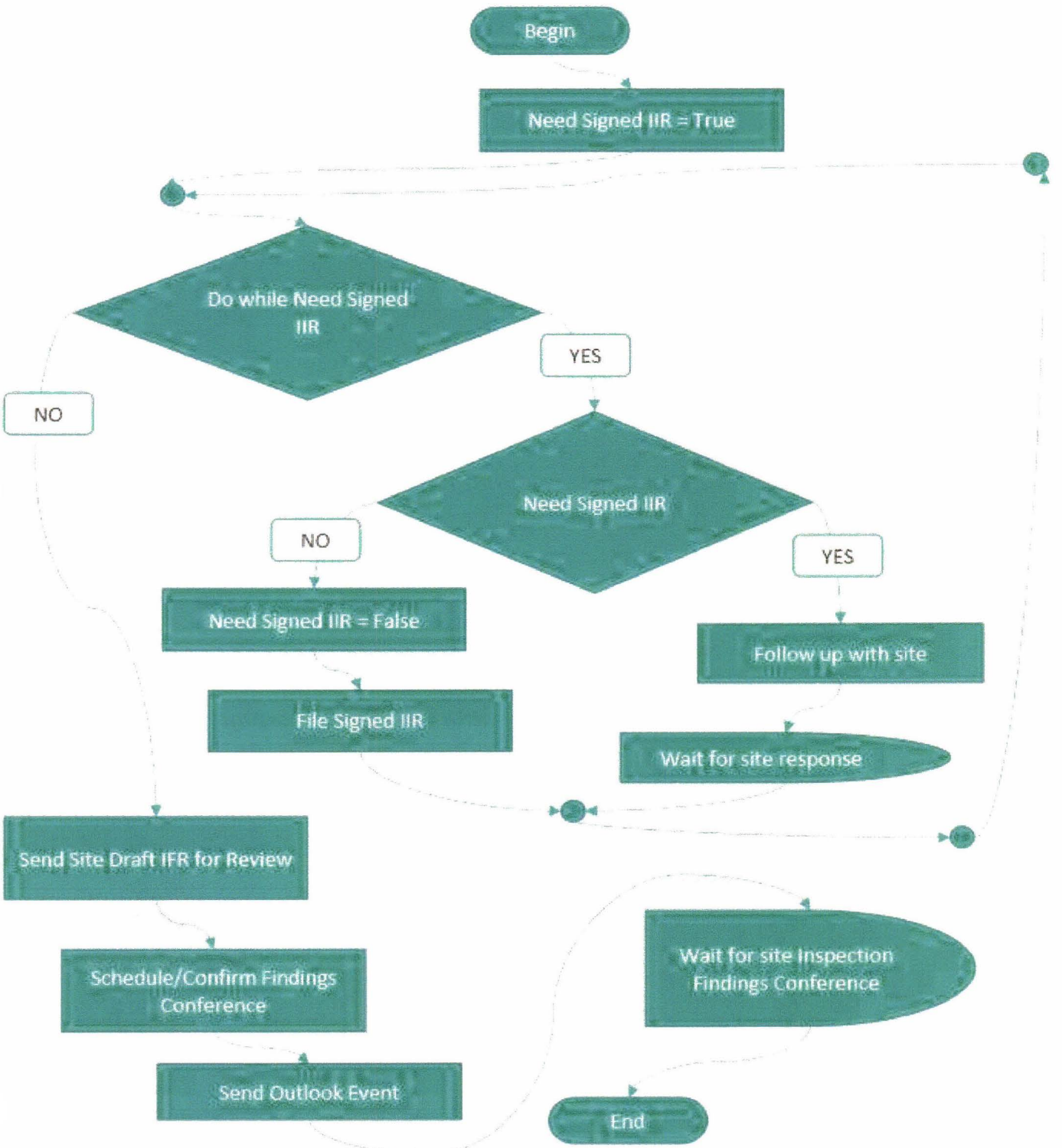


Audit Process IIIB1

Ove... → Pos... → IFR... → 2nd Auditor Evidence Review

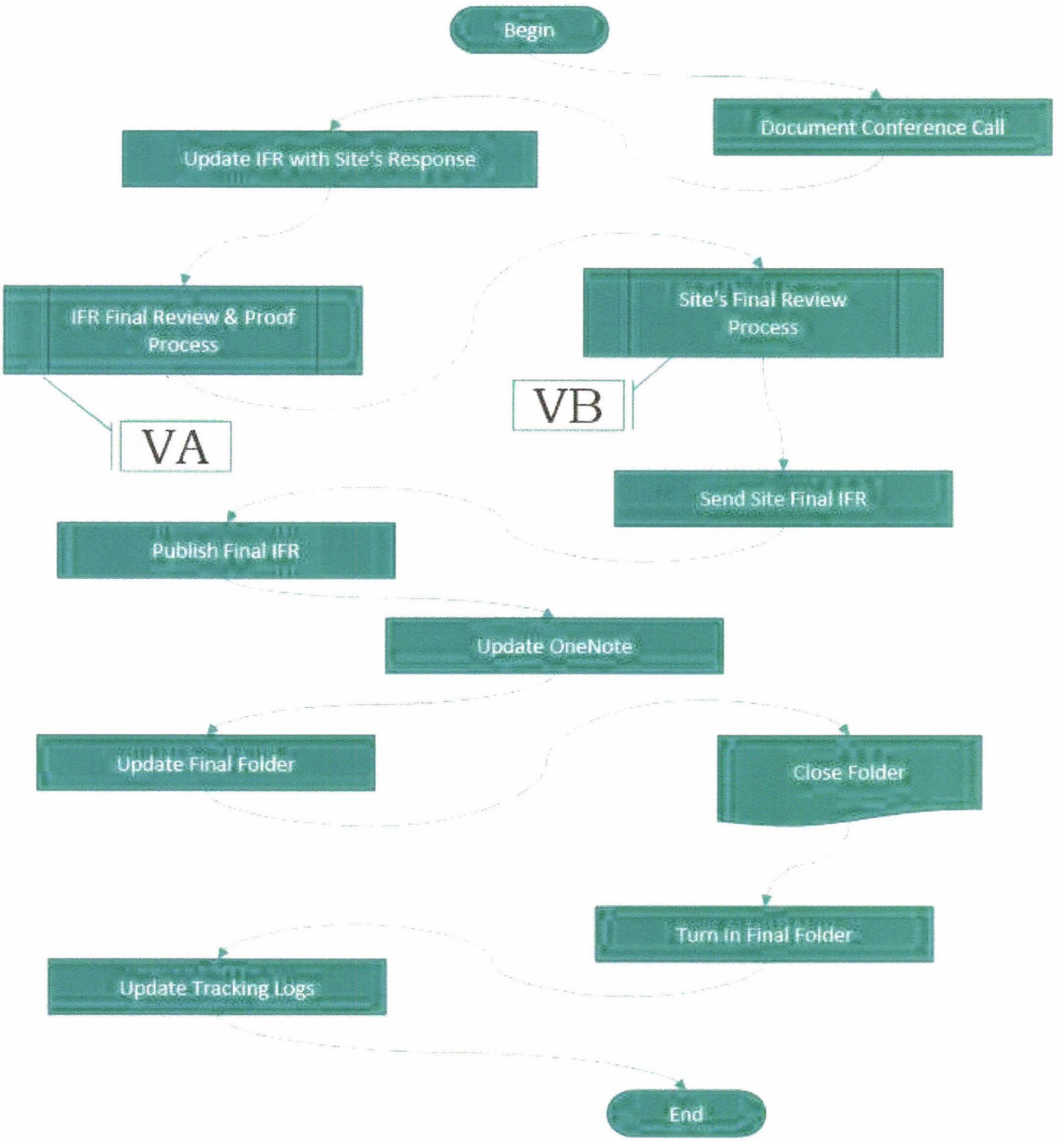


Overview → Pre-Findings Conference



Audit Process V

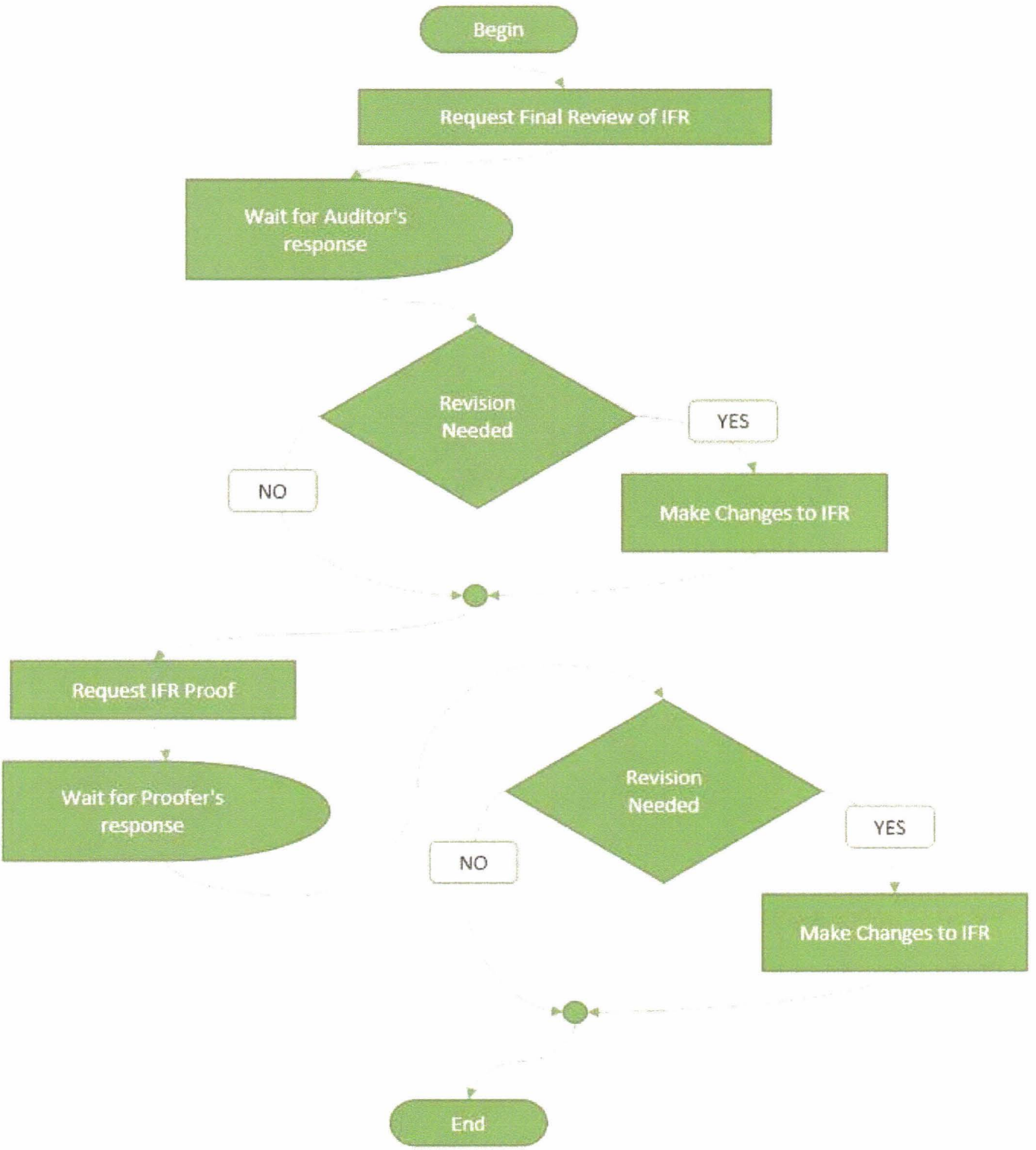
Overview → Findings Conference



Audit Process

VA

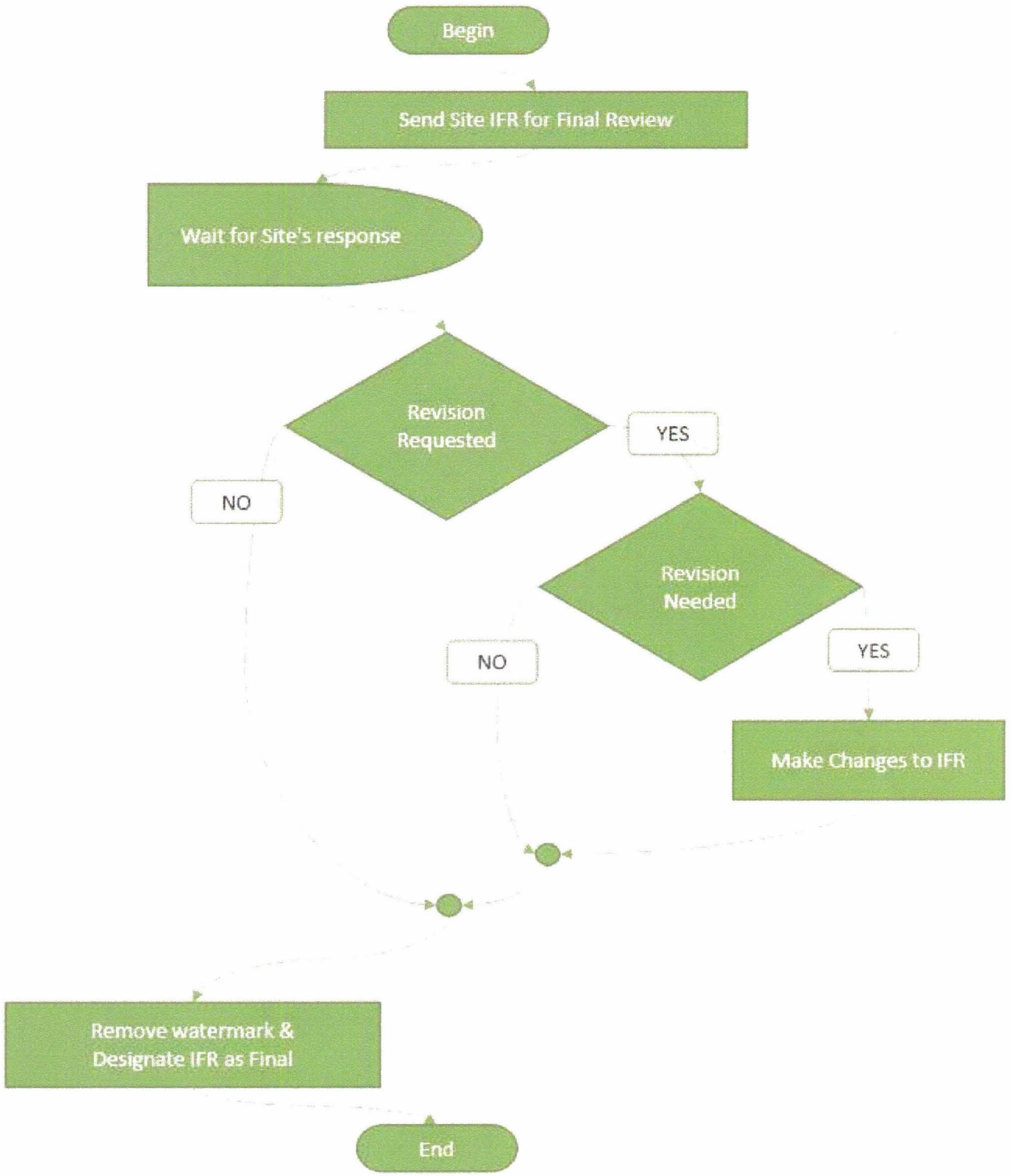
Ove... → Findings Conference → IFR Final Review & Proof



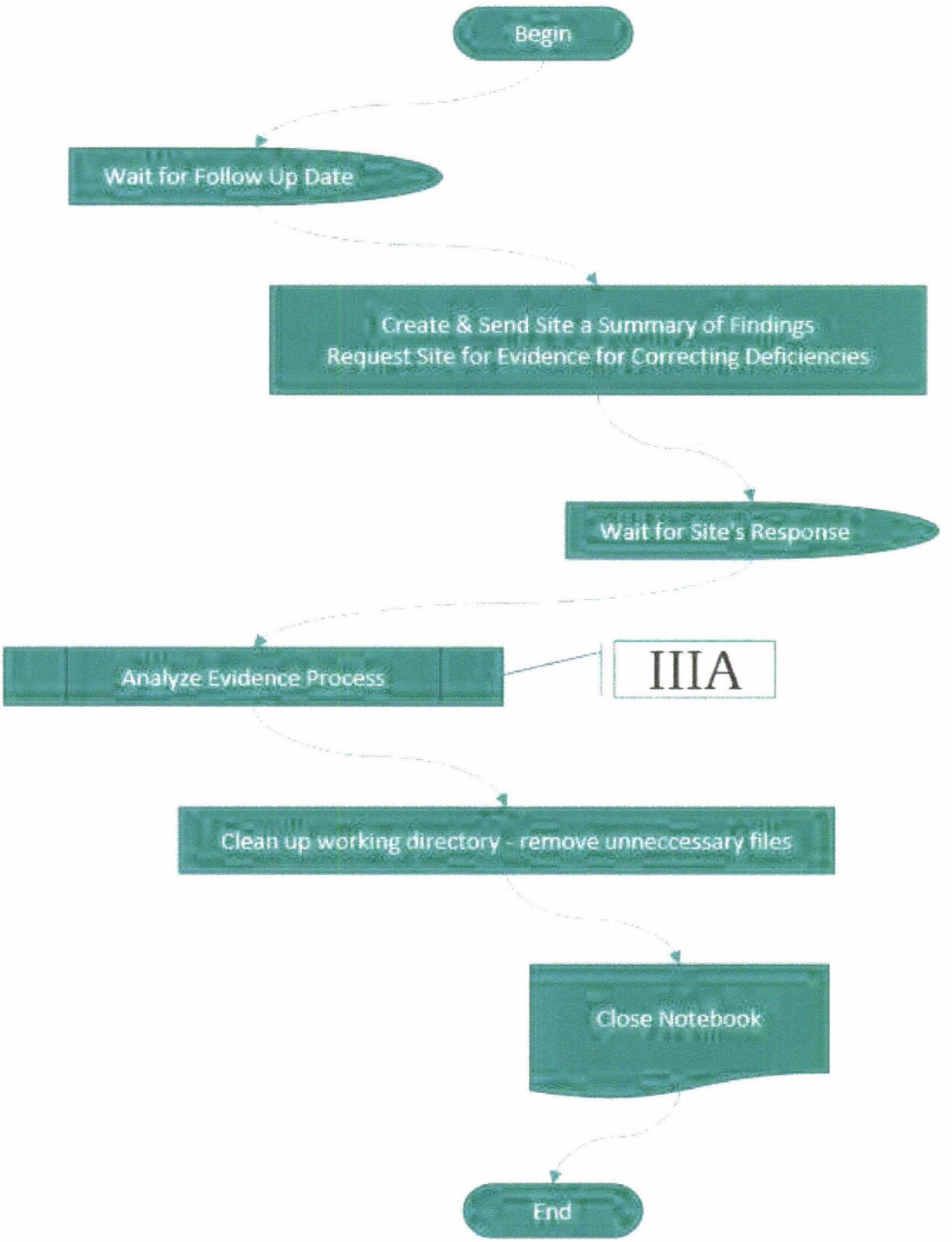
Audit Process

VB

Ove... → Findings Conference → Site's Final Review

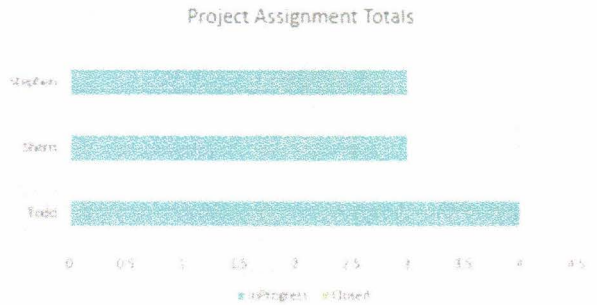


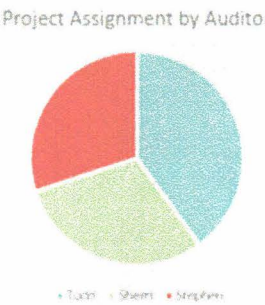
Overview → Follow Up Process



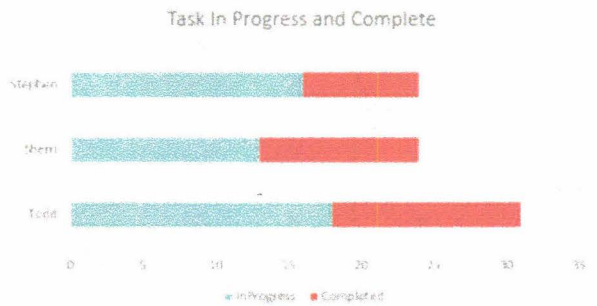
Performance and Risk Dashboard

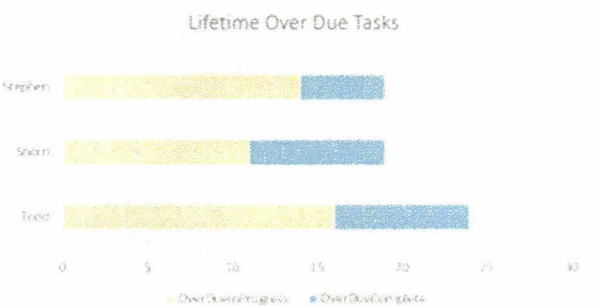
Project Overview

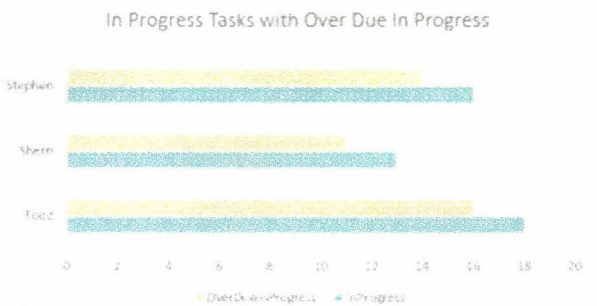


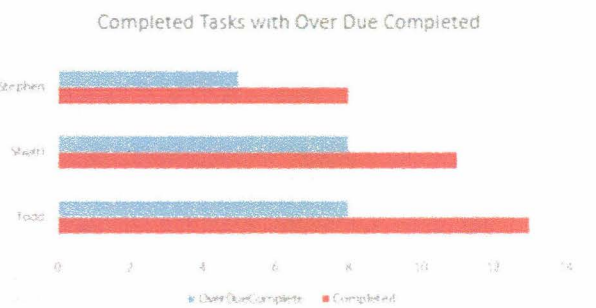


Task Overview

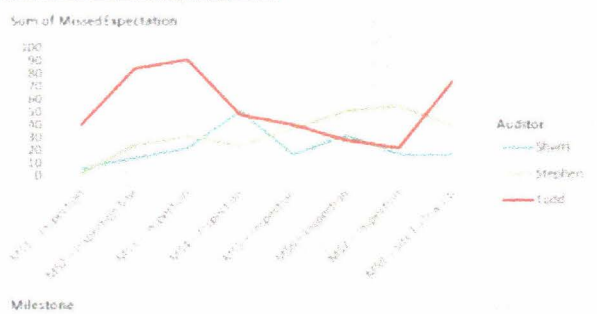








Milestone Overview



Projects							
Site Name	Auditor	Date Assigned	Date Closed	InProgress	Complete	ValidityTes	ValidityTes
Site One	Todd	10/31/2016		TRUE	FALSE	TRUE	TRUE
Site Two	Sherri	10/31/2016		TRUE	FALSE	TRUE	TRUE
Site Three	Stephen	10/31/2016		TRUE	FALSE	TRUE	TRUE
Site Four	Todd	11/7/2016		TRUE	FALSE	TRUE	TRUE
Site Five	Sherri	11/7/2016		TRUE	FALSE	TRUE	TRUE
Site Six	Stephen	11/7/2016		TRUE	FALSE	TRUE	TRUE
Site Seven	Todd	11/14/2016		TRUE	FALSE	TRUE	TRUE
Site Eight	Sherri	11/14/2016		TRUE	FALSE	TRUE	TRUE
Site Nine	Stephen	11/14/2016		TRUE	FALSE	TRUE	TRUE
Site Ten	Todd	11/21/2016		TRUE	FALSE	TRUE	TRUE

1	1	Site One	Todd	1	Create Notebook, work folder, update checklist and IIR	10/31/2016	11/4/2016	11/5/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
2	1	Site One	Todd	2	Send ICL	10/31/2016	11/4/2016	11/3/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
3	1	Site One	Todd	3	Send ICQ	10/31/2016	2/15/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
4	1	Site One	Todd	4	PreInspection Conference	12/5/2016	2/15/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
5	1	Site One	Todd	5	Inspection	1/2/2017	2/15/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
6	1	Site One	Todd	6	IIR Signatures	3/6/2017	3/24/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
7	1	Site One	Todd	7	IFC Send Outlook event	2/27/2017	3/10/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
8	1	Site One	Todd	8	IFR Send for review and response	3/27/2017	4/14/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
9	1	Site One	Todd	9	IFCC	4/17/2017	4/21/2017		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
10	1	Site One	Todd	10	IFR Send Final	6/5/2017	6/9/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
11	1	Site One	Todd	11	Final Folder Turn in	6/5/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
12	1	Site One	Todd	12	Send Inspection Follow up	8/14/2017	8/18/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
13	1	Site One	Todd	13	Inspection follow up response due	8/21/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
14	2	Site Two	Sherri	1	Create Notebook, work folder, update checklist and IIR	10/31/2016	11/4/2016	11/14/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
15	2	Site Two	Sherri	2	Send ICL	10/31/2016	11/4/2016	11/2/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
16	2	Site Two	Sherri	3	Send ICQ	10/31/2016	11/4/2016	11/13/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
17	2	Site Two	Sherri	4	PreInspection Conference	12/5/2016	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
18	2	Site Two	Sherri	5	Inspection	1/2/2017	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
19	2	Site Two	Sherri	6	IIR Signatures	1/5/2017	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
20	2	Site Two	Sherri	7	IFC Send Outlook event	2/27/2017	1/2/1900		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
21	2	Site Two	Sherri	8	IFR Send for review and response	3/27/2017	4/14/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
22	2	Site Two	Sherri	9	IFCC	4/17/2017	4/21/2017		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
23	2	Site Two	Sherri	10	IFR Send Final	6/5/2017	6/9/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
24	2	Site Two	Sherri	11	Final Folder Turn in	6/5/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
25	2	Site Two	Sherri	12	Send Inspection Follow up	8/14/2017	8/18/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
26	2	Site Two	Sherri	13	Inspection follow up response due	8/21/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
27	3	Site Three	Stephen	1	Create Notebook, work folder, update checklist and IIR	10/31/2016	11/4/2016	11/2/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
28	3	Site Three	Stephen	2	Send ICL	10/31/2016	11/4/2016	11/11/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
29	3	Site Three	Stephen	3	Send ICQ	10/31/2016	11/4/2016		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
30	3	Site Three	Stephen	4	PreInspection Conference	12/5/2016	12/5/2016		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
31	3	Site Three	Stephen	5	Inspection	1/2/2017	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
32	3	Site Three	Stephen	6	IIR Signatures	1/2/2017	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
33	3	Site Three	Stephen	7	IFC Send Outlook event	1/2/2017	2/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
34	3	Site Three	Stephen	8	IFR Send for review and response	3/27/2017	4/14/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
35	3	Site Three	Stephen	9	IFCC	4/17/2017	4/21/2017		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
36	3	Site Three	Stephen	10	IFR Send Final	6/5/2017	6/9/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
37	3	Site Three	Stephen	11	Final Folder Turn in	6/5/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
38	3	Site Three	Stephen	12	Send Inspection Follow up	8/14/2017	8/18/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
39	3	Site Three	Stephen	13	Inspection follow up response due	8/21/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
40	4	Site Four	Todd	1	Create Notebook, work folder, update checklist and IIR	11/7/2016	11/11/2016	11/22/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
41	4	Site Four	Todd	2	Send ICL	11/7/2016	11/11/2016	11/14/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
42	4	Site Four	Todd	3	Send ICQ	11/7/2016	11/11/2016	11/9/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
43	4	Site Four	Todd	4	PreInspection Conference	12/12/2016	12/12/2016	12/17/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
44	4	Site Four	Todd	5	Inspection	1/9/2017	1/9/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
45	4	Site Four	Todd	6	IIR Signatures	3/13/2017	3/31/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
46	4	Site Four	Todd	7	IFC Send Outlook event	3/6/2017	3/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
47	4	Site Four	Todd	8	IFR Send for review and response	4/3/2017	4/21/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
48	4	Site Four	Todd	9	IFCC	4/24/2017	4/28/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
49	4	Site Four	Todd	10	IFR Send Final	6/12/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
50	4	Site Four	Todd	11	Final Folder Turn in	6/12/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
51	4	Site Four	Todd	12	Send Inspection Follow up	8/21/2017	8/25/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
52	4	Site Four	Todd	13	Inspection follow up response due	8/28/2017	9/8/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
53	5	Site Five	Sherri	1	Create Notebook, work folder, update checklist and IIR	11/7/2016	11/11/2016	11/23/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
54	5	Site Five	Sherri	2	Send ICL	11/7/2016	11/11/2016	11/7/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
55	5	Site Five	Sherri	3	Send ICQ	11/7/2016	11/11/2016	11/24/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
56	5	Site Five	Sherri	4	PreInspection Conference	12/12/2016	12/12/2016	12/19/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
57	5	Site Five	Sherri	5	Inspection	1/9/2017	1/9/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
58	5	Site Five	Sherri	6	IIR Signatures	3/13/2017	3/31/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
59	5	Site Five	Sherri	7	IFC Send Outlook event	3/6/2017	3/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
60	5	Site Five	Sherri	8	IFR Send for review and response	4/3/2017	4/21/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
61	5	Site Five	Sherri	9	IFCC	4/24/2017	4/28/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
62	5	Site Five	Sherri	10	IFR Send Final	6/12/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
63	5	Site Five	Sherri	11	Final Folder Turn in	6/12/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
64	5	Site Five	Sherri	12	Send Inspection Follow up	8/21/2017	8/25/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
65	5	Site Five	Sherri	13	Inspection follow up response due	8/28/2017	9/8/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
66	6	Site Six	Stephen	1	Create Notebook, work folder, update checklist and IIR	11/7/2016	11/11/2016	11/11/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
67	6	Site Six	Stephen	2	Send ICL	11/7/2016	11/11/2016	11/18/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
68	6	Site Six	Stephen	3	Send ICQ	11/7/2016	11/11/2016	11/20/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
69	6	Site Six	Stephen	4	PreInspection Conference	12/12/2016	12/12/2016	12/14/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
70	6	Site Six	Stephen	5	Inspection	1/9/2017	1/9/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
71	6	Site Six	Stephen	6	IIR Signatures	3/13/2017	3/31/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
72	6	Site Six	Stephen	7	IFC Send Outlook event	3/6/2017	3/17/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
73	6	Site Six	Stephen	8	IFR Send for review and response	4/3/2017	4/21/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
74	6	Site Six	Stephen	9	IFCC	4/24/2017	4/28/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
75	6	Site Six	Stephen	10	IFR Send Final	6/12/2017	6/16/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
76	6	Site Six	Stephen	11	Final Folder Turn in	6/12/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
77	6	Site Six	Stephen	12	Send Inspection Follow up	8/21/2017	8/25/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
78	6	Site Six	Stephen	13	Inspection follow up response due	8/28/2017	9/8/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
79	7	Site Seven	Todd	1	Create Notebook, work folder, update checklist and IIR	11/14/2016	11/18/2016	11/20/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
80	7	Site Seven	Todd	2	Send ICL	11/14/2016	11/18/2016	11/15/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
81	7	Site Seven	Todd	3	Send ICQ	11/14/2016	11/18/2016	11/16/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
82	7	Site Seven	Todd	4	PreInspection Conference	12/19/2016	12/19/2016	12/24/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
83	7	Site Seven	Todd	5	Inspection	1/16/2017	1/16/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
84	7	Site Seven	Todd	6	IIR Signatures	3/20/2017	4/7/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
85	7	Site Seven	Todd	7	IFC Send Outlook event	3/13/2017	3/24/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
86	7	Site Seven	Todd	8	IFR Send for review and response	4/10/2017	4/28/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
87	7	Site Seven	Todd	9	IFCC	5/1/2017	5/5/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
88	7	Site Seven	Todd	10	IFR Send Final	6/19/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
89	7	Site Seven	Todd	11	Final Folder Turn in	6/19/2017	6/30/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
90	7	Site Seven	Todd	12	Send Inspection Follow up	8/28/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
91	7	Site Seven	Todd	13	Inspection follow up response due	9/4/2017	9/15/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
92	8	Site Eight	Sherri	1	Create Notebook, work folder, update checklist and IIR	11/14/2016	11/18/2016	11/28/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
93	8	Site Eight	Sherri	2	Send ICL	11/14/2016	11/18/2016	11/18/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
94	8	Site Eight	Sherri	3	Send ICQ	11/14/2016	11/18/2016	11/30/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
95	8	Site Eight	Sherri	4	PreInspection Conference	12/19/2016	12/19/2016	12/26/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
96	8	Site Eight	Sherri	5	Inspection	1/16/2017	1/16/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
97	8	Site Eight	Sherri	6	IIR Signatures	3/20/2017	4/7/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
98	8	Site Eight	Sherri	7	IFC Send Outlook event	3/13/2017	3/24/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
99	8	Site Eight	Sherri	8	IFR Send for review and response	4/10/2017	4/28/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
100	8	Site Eight	Sherri	9	IFCC	5/1/2017	5/5/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
101	8	Site Eight	Sherri	10	IFR Send Final	6/19/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
102	8	Site Eight	Sherri	11	Final Folder Turn in	6/19/2017	6/30/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
103	8	Site Eight	Sherri	12	Send Inspection Follow up	8/28/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
104	8	Site Eight	Sherri	13	Inspection follow up response due	9/4/2017	9/15/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
105	9	Site Nine	Stephen	1	Create Notebook, work folder, update checklist and IIR	11/14/2016	11/18/2016	11/15/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
106	9	Site Nine	Stephen	2	Send ICL	11/14/2016	11/18/2016	11/23/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
107	9	Site Nine	Stephen	3	Send ICQ	11/14/2016	11/18/2016		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
108	9	Site Nine	Stephen	4	PreInspection Conference	12/19/2016	12/19/2016		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
109	9	Site Nine	Stephen	5	Inspection	1/16/2017	1/16/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
110	9	Site Nine	Stephen	6	IIR Signatures	3/20/2017	4/7/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
111	9	Site Nine	Stephen	7	IFC Send Outlook event	3/13/2017	3/24/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
112	9	Site Nine	Stephen	8	IFR Send for review and response	4/10/2017	4/28/2017		FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
113	9	Site Nine	Stephen	9	IFCC	5/1/2017	5/5/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
114	9	Site Nine	Stephen	10	IFR Send Final	6/19/2017	6/23/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
115	9	Site Nine	Stephen	11	Final Folder Turn in	6/19/2017	6/30/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
116	9	Site Nine	Stephen	12	Send Inspection Follow up	8/28/2017	9/1/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
117	9	Site Nine	Stephen	13	Inspection follow up response due	9/4/2017	9/15/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
118	10	Site Ten	Todd	1	Create Notebook, work folder, update checklist and IIR	11/21/2016	11/25/2016	11/27/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
119	10	Site Ten	Todd	2	Send ICL	11/21/2016	11/25/2016	11/24/2016	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
120	10	Site Ten	Todd	3	Send ICQ	11/21/2016	11/25/2016	12/8/2016	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
121	10	Site Ten	Todd	4	PreInspection Conference	12/26/2016	12/26/2016		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
122	10	Site Ten	Todd	5	Inspection	1/23/2017	1/23/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
123	10	Site Ten	Todd	6	IIR Signatures	3/27/2017	4/14/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
124	10	Site Ten	Todd	7	IFC Send Outlook event	3/20/2017	3/31/2017		FALSE	TRUE	TRUE	FALSE	TRUE	FALSE
125	10	Site Ten	Todd	8	IFR Send for review and response	4/17/2017	5/5/2017		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
126	10	Site Ten	Todd	9	IFCC	5/8/2017	5/12/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
127	10	Site Ten	Todd	10	IFR Send Final	6/26/2017	6/30/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
128	10	Site Ten	Todd	11	Final Folder Turn in	6/26/2017	7/7/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
129	10	Site Ten	Todd	12	Send Inspection Follow up	9/4/2017	9/8/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
130	10	Site Ten	Todd	13	Inspection follow up response due	9/11/2017	9/22/2017		TRUE	FALSE	FALSE	FALSE	FALSE	FALSE

Milestones

Milestone ID	IAD File	Site Name	Auditor	Milestone	Expected Realization	Completed Date	Misc. Info
1	1	Site One	Todd	MS1 – Inspection	1/3/2017	2/1/2017	29
2	1	Site One	Todd	MS2 – Inspection Site Review	1/10/2017	2/6/2017	27
3	1	Site One	Todd	MS3 – Inspection Report Issued	1/22/2017	2/18/2017	27
4	1	Site One	Todd	MS4 – Inspection Report Signed and Returned	2/12/2017	2/15/2017	3
5	1	Site One	Todd	MS5 – Inspection Findings Report Site Review	3/29/2017	3/26/2017	-3
6	1	Site One	Todd	MS6 – Inspection Findings Conference	4/19/2017	4/22/2017	3
7	1	Site One	Todd	MS7 – Inspection Findings Report Issued	5/3/2017	5/11/2017	8
8	1	Site One	Todd	MS8 – Site Follow Up	7/2/2017	7/4/2017	2
9	2	Site Two	Sherri	MS1 – Inspection	1/4/2017	1/9/2017	5
10	2	Site Two	Sherri	MS2 – Inspection Site Review	1/11/2017	1/8/2017	-3
11	2	Site Two	Sherri	MS3 – Inspection Report Issued	1/23/2017	2/8/2017	16
12	2	Site Two	Sherri	MS4 – Inspection Report Signed and Returned	2/13/2017	2/19/2017	6
13	2	Site Two	Sherri	MS5 – Inspection Findings Report Site Review	3/30/2017	3/28/2017	-2
14	2	Site Two	Sherri	MS6 – Inspection Findings Conference	4/20/2017	5/17/2017	27
15	2	Site Two	Sherri	MS7 – Inspection Findings Report Issued	5/4/2017	5/3/2017	-1
16	2	Site Two	Sherri	MS8 – Site Follow Up	7/3/2017	6/28/2017	-5
17	3	Site Three	Stephen	MS1 – Inspection	1/5/2017	1/6/2017	1
18	3	Site Three	Stephen	MS2 – Inspection Site Review	1/12/2017	1/21/2017	9
19	3	Site Three	Stephen	MS3 – Inspection Report Issued	1/24/2017	2/10/2017	17
20	3	Site Three	Stephen	MS4 – Inspection Report Signed and Returned	2/14/2017	3/1/2017	15
21	3	Site Three	Stephen	MS5 – Inspection Findings Report Site Review	3/31/2017	4/14/2017	14
22	3	Site Three	Stephen	MS6 – Inspection Findings Conference	4/21/2017	5/11/2017	20
23	3	Site Three	Stephen	MS7 – Inspection Findings Report Issued	5/5/2017	5/12/2017	7
24	3	Site Three	Stephen	MS8 – Site Follow Up	7/4/2017	6/29/2017	-5
25	4	Site Four	Todd	MS1 – Inspection	1/10/2017	1/24/2017	14
26	4	Site Four	Todd	MS2 – Inspection Site Review	1/17/2017	1/20/2017	3
27	4	Site Four	Todd	MS3 – Inspection Report Issued	1/29/2017	2/28/2017	30
28	4	Site Four	Todd	MS4 – Inspection Report Signed and Returned	2/19/2017	3/12/2017	21
29	4	Site Four	Todd	MS5 – Inspection Findings Report Site Review	4/5/2017	4/23/2017	18
30	4	Site Four	Todd	MS6 – Inspection Findings Conference	4/26/2017	5/22/2017	26
31	4	Site Four	Todd	MS7 – Inspection Findings Report Issued	5/10/2017	5/13/2017	3
32	4	Site Four	Todd	MS8 – Site Follow Up	7/9/2017	7/22/2017	13
33	5	Site Five	Sherri	MS1 – Inspection	1/11/2017	1/13/2017	2
34	5	Site Five	Sherri	MS2 – Inspection Site Review	1/18/2017	2/9/2017	22
35	5	Site Five	Sherri	MS3 – Inspection Report Issued	1/30/2017	2/9/2017	10
36	5	Site Five	Sherri	MS4 – Inspection Report Signed and Returned	2/20/2017	3/21/2017	29
37	5	Site Five	Sherri	MS5 – Inspection Findings Report Site Review	4/6/2017	4/27/2017	21
38	5	Site Five	Sherri	MS6 – Inspection Findings Conference	4/27/2017	5/1/2017	4
39	5	Site Five	Sherri	MS7 – Inspection Findings Report Issued	5/11/2017	5/18/2017	7
40	5	Site Five	Sherri	MS8 – Site Follow Up	7/10/2017	7/10/2017	0
41	6	Site Six	Stephen	MS1 – Inspection	1/12/2017	1/18/2017	6
42	6	Site Six	Stephen	MS2 – Inspection Site Review	1/19/2017	1/24/2017	5
43	6	Site Six	Stephen	MS3 – Inspection Report Issued	1/31/2017	2/2/2017	2
44	6	Site Six	Stephen	MS4 – Inspection Report Signed and Returned	2/21/2017	3/1/2017	8
45	6	Site Six	Stephen	MS5 – Inspection Findings Report Site Review	4/7/2017	4/12/2017	5
46	6	Site Six	Stephen	MS6 – Inspection Findings Conference	4/28/2017	5/10/2017	12
47	6	Site Six	Stephen	MS7 – Inspection Findings Report Issued	5/12/2017	5/30/2017	18
48	6	Site Six	Stephen	MS8 – Site Follow Up	7/11/2017	7/30/2017	19
49	7	Site Seven	Todd	MS1 – Inspection	1/17/2017	1/12/2017	-5
50	7	Site Seven	Todd	MS2 – Inspection Site Review	1/24/2017	2/18/2017	25
51	7	Site Seven	Todd	MS3 – Inspection Report Issued	2/5/2017	3/4/2017	27
52	7	Site Seven	Todd	MS4 – Inspection Report Signed and Returned	2/26/2017	3/9/2017	11
53	7	Site Seven	Todd	MS5 – Inspection Findings Report Site Review	4/12/2017	4/16/2017	4
54	7	Site Seven	Todd	MS6 – Inspection Findings Conference	5/3/2017	5/2/2017	-1
55	7	Site Seven	Todd	MS7 – Inspection Findings Report Issued	5/17/2017	5/23/2017	6
56	7	Site Seven	Todd	MS8 – Site Follow Up	7/16/2017	8/14/2017	29
57	8	Site Eight	Sherri	MS1 – Inspection	1/19/2017	1/18/2017	-1
58	8	Site Eight	Sherri	MS2 – Inspection Site Review	1/26/2017	1/21/2017	-5
59	8	Site Eight	Sherri	MS3 – Inspection Report Issued	2/7/2017	2/3/2017	-4
60	8	Site Eight	Sherri	MS4 – Inspection Report Signed and Returned	2/28/2017	3/16/2017	16
61	8	Site Eight	Sherri	MS5 – Inspection Findings Report Site Review	4/14/2017	4/12/2017	-2
62	8	Site Eight	Sherri	MS6 – Inspection Findings Conference	5/5/2017	5/6/2017	1
63	8	Site Eight	Sherri	MS7 – Inspection Findings Report Issued	5/19/2017	5/30/2017	11
64	8	Site Eight	Sherri	MS8 – Site Follow Up	7/18/2017	8/9/2017	22
65	9	Site Nine	Stephen	MS1 – Inspection	1/18/2017	1/13/2017	-5
66	9	Site Nine	Stephen	MS2 – Inspection Site Review	1/25/2017	2/4/2017	10
67	9	Site Nine	Stephen	MS3 – Inspection Report Issued	2/6/2017	2/18/2017	12
68	9	Site Nine	Stephen	MS4 – Inspection Report Signed and Returned	2/27/2017	2/28/2017	1
69	9	Site Nine	Stephen	MS5 – Inspection Findings Report Site Review	4/13/2017	5/1/2017	18
70	9	Site Nine	Stephen	MS6 – Inspection Findings Conference	5/4/2017	5/23/2017	19
71	9	Site Nine	Stephen	MS7 – Inspection Findings Report Issued	5/18/2017	6/17/2017	30
72	9	Site Nine	Stephen	MS8 – Site Follow Up	7/17/2017	8/12/2017	26
73	10	Site Ten	Todd	MS1 – Inspection	1/24/2017	1/26/2017	2
74	10	Site Ten	Todd	MS2 – Inspection Site Review	1/31/2017	3/1/2017	29
75	10	Site Ten	Todd	MS3 – Inspection Report Issued	2/12/2017	2/19/2017	7
76	10	Site Ten	Todd	MS4 – Inspection Report Signed and Returned	3/5/2017	3/18/2017	13
77	10	Site Ten	Todd	MS5 – Inspection Findings Report Site Review	4/19/2017	5/10/2017	21
78	10	Site Ten	Todd	MS6 – Inspection Findings Conference	5/10/2017	5/10/2017	0
79	10	Site Ten	Todd	MS7 – Inspection Findings Report Issued	5/24/2017	5/29/2017	5
80	10	Site Ten	Todd	MS8 – Site Follow Up	7/23/2017	8/22/2017	30

Effective Engagement Scheduling

Project Submission Due: 6 February 2017

SOUTH CAROLINA
DEPARTMENT *of* SOCIAL SERVICES

TODD A. WILKINS, CEH, ECIH

Information System/Business Analyst III

Internal Audit Division

Contents

Synopsis

The agency's information security (info-sec) audit team has an obligation to perform inspections on all DSS county offices, County Clerk of Court offices, and a number of contracted partner offices located around the state due to a data sharing agreement with the IRS. These audits are on a three-year cycle and must be performed for compliance to the agreement. There are currently 150 sites that fall under the compliance regulation and must be inspected once within the allowable timeframe/cycle.

The info-sec audit team, during the time of data collection, is a partnership of four auditors ranging in skill sets and years of service. The inspection is generally performed by two auditors, one taking a lead role and the other adopting a reviewer's role. The team ultimately has the responsibility to ensure inspections are performed, but more importantly that security compliance is met at all of the sites.

The function the info-sec team fulfills is a relatively new function for the agency and, as such, many of the processes and workflows are unseasoned to this team's role. The existing processes and workflow are adaptations from the Agency's financial audit team. The Agency's financial audit team has a great deal of success with its processes and workflow and does well to meet customer's expectations for delivering value to the business unit during and after the audit process. It is our goal to continue to meet these expectations while tweaking and refining the processes and workflow used by the info-sec audit team to meet the demand for security inspections.

A successful outcome for renovating the info-sec audit team's process and workflow will be to provide value to customers by dividing and assigning work segments into manageable fragments, provide timely deliverables in a meaningful format, and schedule project events in a way to stagger project and task assignments to auditors.

Problem/Challenge

A single inspection consists of four defined cycle parts, eight significant milestones, 30 specific tasks, and typically lasts 40 weeks/280 days. Unfortunately due to the volume of inspections performed by the info-sec audit team, inspections must overlap and often a primary auditor juggles multiple inspections. This leads to an auditor having multiple inspection projects open at different stages with a cluster of tasks assigned for each engagement during any given week. The challenge is to maximize the use of lead-time and wait-time on all open engagements so that the team can minimize deadline conflict or the need to reschedule important dates/events/milestones with the customer (inspection site) because of scheduling/timeline issues on the info-sec audit team's part.

Currently, a list of inspection sites is maintained in Excel. This workbook forecasts two key dates: the inspection date and inspection findings conference (IFC) date. Task and milestone scheduling are calculated from these dates. The team uses an Excel worksheet to populate the task list for the inspection project. Every week, a manual process is used to gather the tasks and compile a collected task list for the

team. Tasks not completed from the week(s) before are carried forward to the new weekly task list.

There are a few self-inflicted constraints to the current system. In general, the team goes out for inspections on either Tuesdays or Thursdays and reserves Monday and Wednesdays for closing conferences (IFCs). Fridays are usually considered an in-the-office work day to finish up the assigned weekly tasks. Inspections and IFCs are, as a rule, neither scheduled the week of state holidays nor the last two to three weeks of December to reduce scheduling conflicts. However, these are guidelines and any available date may be used when needed to reschedule events.

Data Collection

The original idea was to account for inspections conducted in a single fiscal year (July to June)[1]; however, due to the audit lifecycle, which on average takes about 2 ½ to 3 months to complete, it was decided to track the inspections that have inspection dates within the fiscal year. This caused the data collection process to take several additional months to capture the remaining data elements for the last several engagements started during the fiscal year.

One of the first data elements is the process and workflow for an inspection engagement. A flowchart[2] is created to identify and map the process. In addition, a

[1] The fiscal year evaluated is July 2015 through June 2016. Unfortunately, the October 2015 flood impacted scheduling and meeting deadlines. The info-sec audit team was reassigned duties October – December 2015. Additionally, a team member was permanently reassigned during this timeframe. Thus, consideration for this large gap in time and loss of a team member is admitted during data analysis.
[2] See the attached "Wilkins - Process Flow Charts" document for further information

RACI chart[3] is compiled to identify individual roles and responsibilities for the inspection engagement. The info-sec audit team compiles a problem analysis diagram[4] for known issues for completing tasks or the need to reschedule events and milestones.

The following data points are identified during the discovery/planning stage of the project. The data is collected from the weekly task lists and by directly identifying dates captured during the engagement. The data is imported to SQL Server and queried against in order to produce summary data that calculates the required data point.

- Determine the average number of open engagements for the team per week
- Determine average number of open engagements per week & per team member: Todd (Auditor1), Sherri (Auditor2), Stephen (Auditor3), and Jonathan (Auditor4)
- Identify the average number of tasks assigned to a team member during a single audit lifecycle
- Identify the average number of tasks assigned during each phase of the audit lifecycle
- Identify the average task time assigned during each phase of the audit lifecycle
- Determine the frequency (how often) a team member is assigned a new audit engagement
- Identify average number of days between all milestones

[3] See the attached "Wilkins - RACI Chart" document for further information.
[4] See the attached "Wilkins - Problem Analysis Diagram" document for more information.

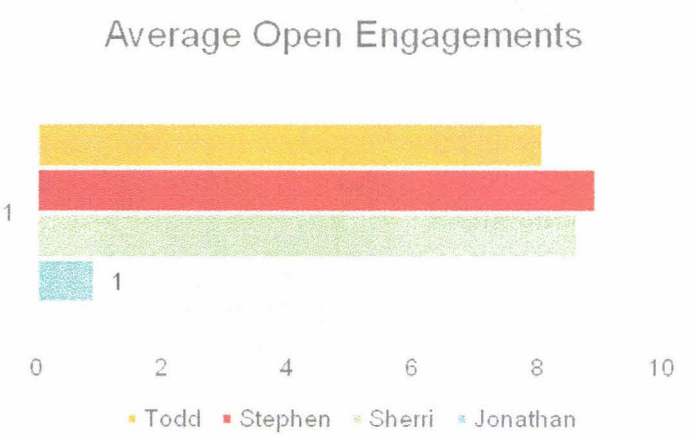
- Identify all tasks including time to complete and any dependencies or prerequisites to complete during an audit lifecycle

Data Analysis

For the purpose of study, data was collected for 18 months. This period of time is determined by evaluating all site inspections with inspection dates for FY2016 and establishing when the first and last assigned tasks are completed. The tasks under review are the defined tasks that are assigned and tracked by the process in place during the 18 month period. There are a total of 30 unique tasks assigned per inspection engagement: 16 assigned during the Engagement Process, 6 assigned during the Post-Engagement, 6 assigned during the Conference Processes, and 2 during the Follow-Up Process. As a result of the study, additional tasks are identified.

Average Open Engagements

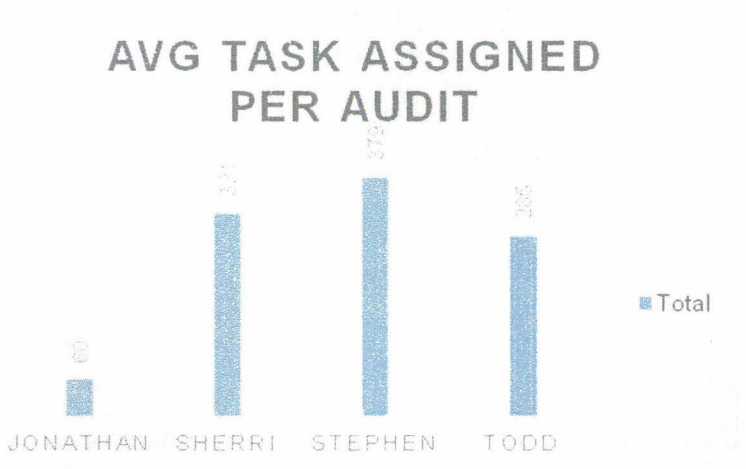
A review and average of the open engagements per week shows the team member's averages 8/9 open engagements at any given time. The high water mark occurs in week 50 (May 23 – 27) with 50 open engagements and the team members holding the following open engagements: Todd – 13, Sherri – 17, Stephen, 18, and Jonathan 2. The team on average has 27 open engagements during the data collection period. This indicator is



utilized as a Key Risk Indicator (KRI) showing how many engagements an auditor has open at any given time. A threshold should be evaluated and applied for effectiveness.

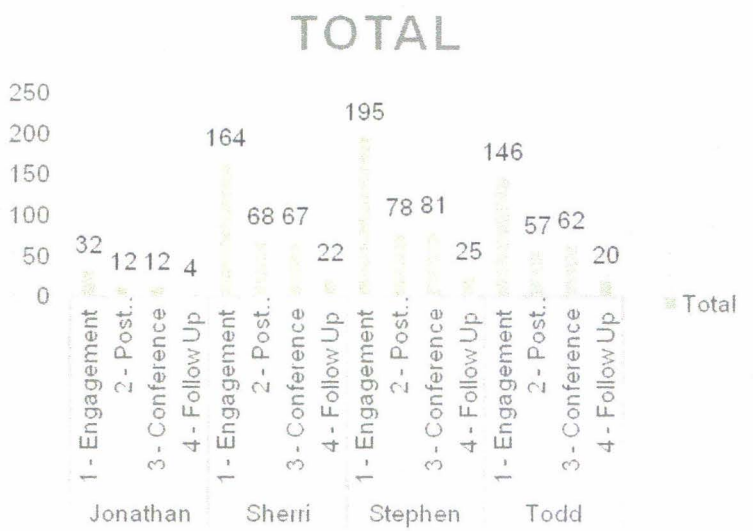
Average Task Assigned per Audit

The next study evaluates each inspection engagement and averages for all tasks assigned to the auditor during the engagement. What this suggests is that although, on average, the three main auditors have an average of 8/9 open engagements at any one time, tasks may stack up due to over assignment of projects or a delay in completing assigned tasks. This number may only indicate a potential issue and is a Key Risk Indicator (KRI). This needs to be aggregated with other indicators to have more value.



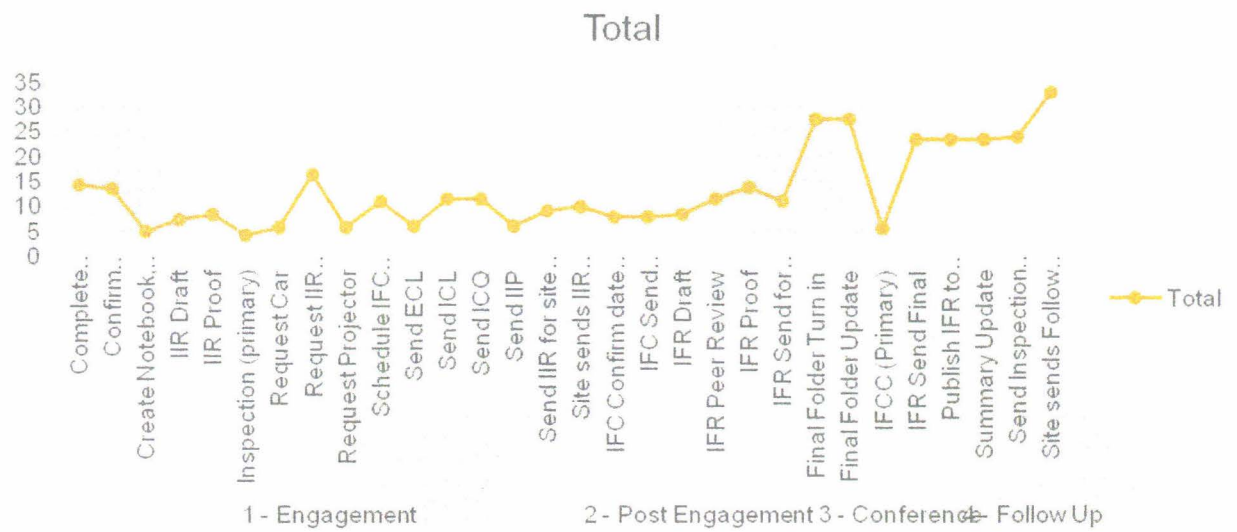
Average Task Assignment per Audit by Audit Cycle

By only evaluating the number of tasks assigned during the audit life cycle, there isn't a clear determination of what may cause the audit project to slow down or cause the number of tasks assigned to lag. Evaluating the task assignment by the audit life cycle begins to show where and when the bulk of tasks are assigned during the engagement. Over half of the tasks are assigned during the Engagement process. This a cumulative number of tasks for a specific engagement and any other tasks for open engagements. This may indicate that the Engagement process is the most demanding of the processes in terms of juggling projects and assigned tasks. This is leveraged as a KRI, but a threshold must be determined for peak performance. This indicator along with the previous two will provide insight for emerging deadline and timeline collapse.



Average Task Life Span

The most logical stepping stone is to now evaluate the tasks and determine their life-span throughout the audit life cycle. The limitation is that the tracking system tracks by weeks and not days. A task assigned and completed in a single day would track the same life span of a task assigned on Monday and completed on Friday – one week. The first note is that the tasks are in alphabetical order within the proper process. It is ascertained that while the bulk of tasks are assigned during the first process (Engagement), the bulk of time weigh-downs are found in the last two processes

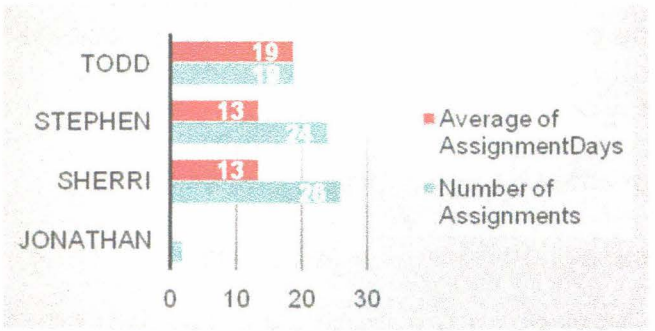


(Conference and Follow-Up[5]). This indicator measures performance based on task life-span.

[5] Knowing the process, during the last two phases the focus of work product begins to shift from the auditor to the inspection site for response and corrective actions. The documented/assigned tasks do not normally take a lot of time, but the communication that takes place between the auditors and the site can consume hours not accounted for within the project.

Team Assignment Frequency

One obvious place to look for abnormality is the frequency an auditor is assigned a new inspection site. The inspection dates are traced for each auditor respectively looking to determine the number of days between[6] inspections for the auditor. For the purpose of the study, Jonathan's (Auditor 4) numbers are not a factor for analysis. This chart shows the number of inspections assigned to the auditor and the average number of days between assignments. The number of inspections range from 19 to 26 with 13-19 days between assignments. The rate is roughly every 2-3 weeks an auditor is assigned a new inspection project. This indicator measures the risk of over taxing the auditor with engagements too frequently.



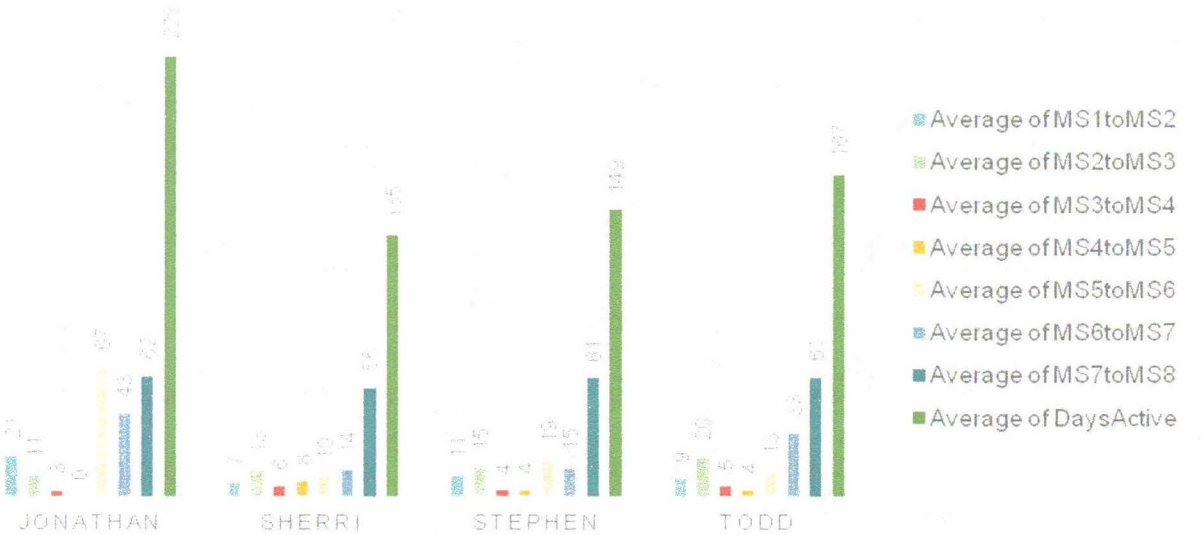
Average Days between Milestones

A slightly different view of the task data is to evaluate the milestone completion dates. Unlike tasks, the milestone dates are actual dates when the milestone is reached. This data is manually gathered by reviewing each inspection file to collect dates from emails and other scheduled events during the audit cycle. To conserve space on the graph, the milestones are represented as MS1..MS8. These correspond to the following milestones:

- MS1 – Inspection

[6] Due to the 2015 flood, all prospective engagement assignments were suspended from October thru December. Most of these sites are assigned new dates within the fiscal year; however, a handful fell over into the next fiscal year.

- MS2 – Inspection Site Review
- MS3 – Inspection Report Issued
- MS4 – Inspection Report Signed and Returned
- MS5 – Inspection Findings Report Site Review
- MS6 – Inspection Findings Conference
- MS7 – Inspection Findings Report Issued
- MS8 – Site Follow Up



The greatest deviation appears between Inspection Finding Conference (MS6[7]) and Inspection Findings Report Issued (MS7). However, what is most alarming are the cumulative days between the Inspection Site Review (MS2) and Inspection Findings Report Site Review (MS5). The cumulative average is 26 days. This impacts the overall flow of the inspection project because the inspection report being signed and returned

[7] Once the conference concludes, the inspection site begins the process of addressing deficiencies. The first step is for the inspection site to determine the best cost effective and efficient solution to meet the security control requirement. Depending on the site, this process may require escalation to acquire approval for funds and other resources. Third-party sites often run into a delay at this stage which postpones issuing the Findings Report with an agreed upon corrective action. This delay has little impact on meeting deadlines and milestones but does impact the over-all length of time an engagement remains active by pushing the follow-up process further out.

(MS4) closes out the first half of the engagement with all tasks and milestones tied to the inspection date. The second half of the engagement process is linked to the Inspection Findings Conference (MS6). The hand-off between the two halves occur when a signed inspection report is received and the inspection findings report is sent for review[8]. This also gives evidence for tasks in the Post-Engagement process lingering and inflating the total number of tasks present during the engagement process for other engagements. Of the indicators used, this risk indicator is the most useful. This KRI measures the most specific and accurate data element available, the actual time between key events of the project.

Fishbone Diagram

The next step is to analyze all of the collected data including the diagrams created early on in the process. The tasks that linger on and not completed timely generally fall under "Method" and "Man" causes[9]. The common denominator of the causes in question boil down to communication and education. The causes that surface are: "Method - Cause: Response time is too long and next steps gets lost between cracks," "Method - Cause: Our process isn't communicated well outside of audit division," "Man - Cause: Customers do not understand their responsibility for compliance," "Man - Cause: Customers are untrained to our processes and tools," and the top cause is "Man - Cause: Customers do not respond to evidence or approval/sign-off requests timely."

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[8] Early in the program, the Inspection Findings Report was sent out before receiving the signed Inspection Report and it was discovered that a control mechanism was needed to ensure the report was returned. The signed inspection reports are the evidence submitted to the IRS showing the inspections occur.
[9] By all accounts, Mother Nature causes, specifically the 2015 flood, have the most devastating impact on the engagement process.

Summary

Evaluating the collected data as a whole and not as individual data points, it appears that the assignment of tasks and expected completion time during the engagement process is too restrictive and optimistic. This observation, coupled with customer's limited knowledge of their responsibility for completing certain tasks timely, lead to missed deadlines and the need to reschedule key events and milestones. A solution that focuses on enhancing these segments of the life cycle will be crucial for adding value to the overall process.

Implementation Plan

It seems counterintuitive to add more tasks and events to the "Engagement" process because this phase already hosts the most tasks and also has the most tasks carried past expected timelines. However, the plan is to add tasks and events which engage the audit site sooner, add an element for education, training, and communication for the audit process, and allow the audit process to start sooner and end later. The purpose is to raise the site's level of awareness of the process, actively engage them sooner, and educate them about task ownership.

Action Steps

There are several action steps to implement a comprehensive plan which will increase the communication and education processes of the audit lifecycle. The first step is to consider what aspects of the audit process need further explanation and determine when the appropriate touch points are for the customer. Next, develop a comprehensive Gantt chart which includes the communication and education tasks. All

the while, curriculum and souvenirs should be developed with the customer in mind. The curriculum and souvenirs should clearly layout 1) the key dates such as inspection and closing conference, 2) required documentation requested from customer such as policies, system overview, and user lists, and 3) milestones and deliverables such as final inspection and findings reports.

Timeframes

The project time line will take several weeks to define and develop the PowerPoint presentation and souvenirs. Week 1, whiteboard ideas for critical components to communicate. Week 2, prioritize components from week 1, get IAD Director approval, and begin developing talking points. Week 3 – 5, finalize talking points, share with IAD Director and get feedback, develop presentation and souvenirs. Week 6 – 7, finalize presentation and souvenirs, share with IAD Director and get feedback. Week 8, update based on IAD Director's feedback. Week 9, begin using newly created curriculum and souvenirs.

Costs

There are no upfront costs to consider other than staff time to develop presentations and souvenirs for the audit process. Office products already licensed will be leveraged to develop needed deliverables. However, the single audit lifecycle is expected to grow to accommodate the communication and education efforts. There may be hidden costs to acclimate the new time line. Additional staff time will need to be used updating currently used spreadsheets and souvenirs to accommodate new lifecycle and tasks.

Potential Obstacles

The biggest obstacle based on past experience with customer base will be keeping them engaged in the process and getting them to recognize their accountability and responsibility for protecting DSS information shared with them based on the contract. The best way to keep them engaged is by including the DSS Business Manager in the correspondence and at times letting the correspondence originate from the business program – used sparingly and only when necessary. The goal for the curriculum will be to help educate the customer of their accountability and responsibility for maintaining security compliance for the information shared and entrusted to them.

Potential Resource

There are tools already in place that can be utilized for developing the curriculum and souvenirs. Additionally, there are staff members from the business area already engaged at some level in the audit process. These key individuals may need to be leveraged at critical times to engage and help hold the customers accountable and responsible for maintaining compliance. The contract and the procurement process may be valuable resources for reminding the customers of their legal obligation for maintaining compliance.

Communication with Stakeholders

The most visible stakeholder in our audit process is the business area which is held ultimately accountable for the compliance and security of the information owned by the business area. The business area is already aware that the process is being re-evaluated for effectiveness and given an opportunity to provide feedback into the current process. Once ideas are white boarded and prioritized, the business area

should be brought into the discussion and allowed an opportunity to shape the talking points to drive home the business goals and values for sharing the information. Other stakeholders (Chief of Staff and Office of Investigations) will have newly developed timelines, curriculum and souvenirs shared with them via email.

Integration into SOP

The current processes and timelines will need to be adjusted to accommodate the new lifecycle. The main schedule in Excel will need to be re-evaluated to make sure that extending the time frame doesn't impose issues on the scheduled inspection and tentative findings conferences. Next, the generic task list will need to be updated to account for the new schedule and tasks. The templates used for Initial Contact, Contact Questionnaire, Engagement Confirmation, Inspection Plan, Inspection Report, Findings Report, Evaluation Matrix, and Check List will all need to be evaluated for impact and changes. Finally, the shared Outlook team calendar will need to be updated where necessary to accommodate changes to timeline.

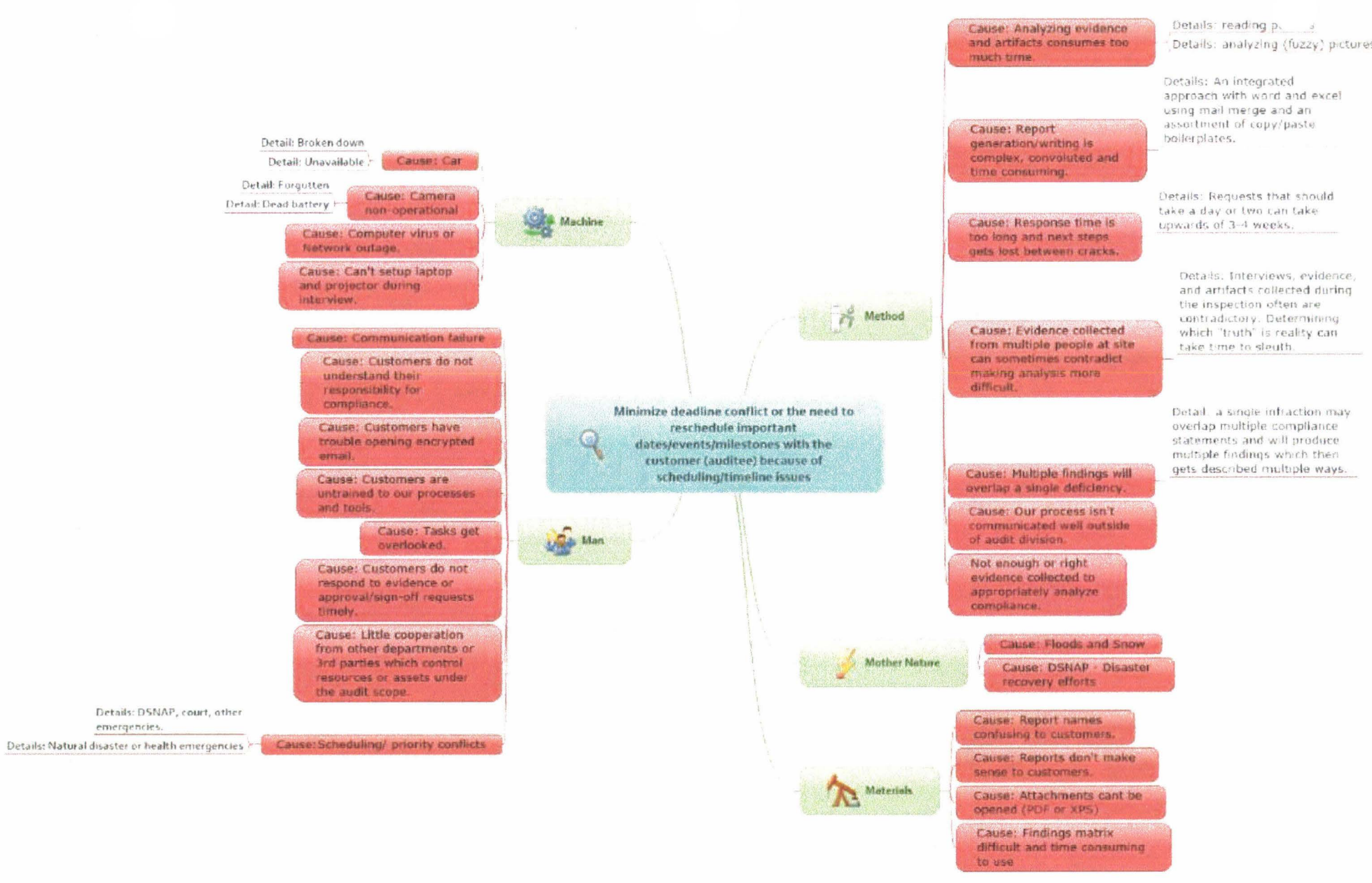
Evaluation

This study evaluated several performance and risk indicators which gives a pinhole view into the Info-Sec Audit's operation. The Info-Sec team "owns" the data and should continue to collect audit project data including the task and milestone data. Moving forward, the task list process should be revamped to collect the date assigned and the actual date completed. An additional administration task will be to compile the task data weekly. In like manner, the milestone data gathering process will need to be defined and

assigned. Both task and milestone data will be compiled leveraging Excel[10]. The workbook contains project, task, and milestone data pertaining to ownership along with expected and actual realization dates. Power pivots and graphs are used to create a dashboard with visualization of the indicator data[11].

[10] See the attached "Wilkins - Performance and Risk" Excel workbook to see how the data collected will be analyzed. Note: dashboard data is fictitious and used only to verify and validate dashboard functionality.

[11] See the attached "Wilkins - Performance and Risk Dashboard" document for a screen shot of the dashboard.



Problem Analysis Diagram

RACI Chart

	Internal Audit Division					Customer		Stakeholders		
Task / Summary	Director	Administrator	Team Lead	Primary Auditor	Secondary Auditor	Management	Work Force	IRS	DSS Exec Management	CISO
Create 3 Year Calendar	C	I	R/A	I	I			I	I	I
Assign Auditors			R/A	I	I					
Create & Send Initial Contact			A	R		I			I	I
Folder Documentation			A	R						
Respond to Initial Contact				I		R/A				
Reschedule/Set Inspection	I		C	R/A						
Create & Send Confirmation	I	I	A	R		I				
Folder Documentation			A	R						
Request Site Information				R/A		I				
Send Site Information				I		R/A				
Folder Documentation			A	R						
Review Site Information				R/A						
Request Car		I	I	R/A	I					
Prepare for Engagement				R/A						

Send Updates on Findings	I	I	I	I	R	C		I	I
Folder Documentation			A	R					

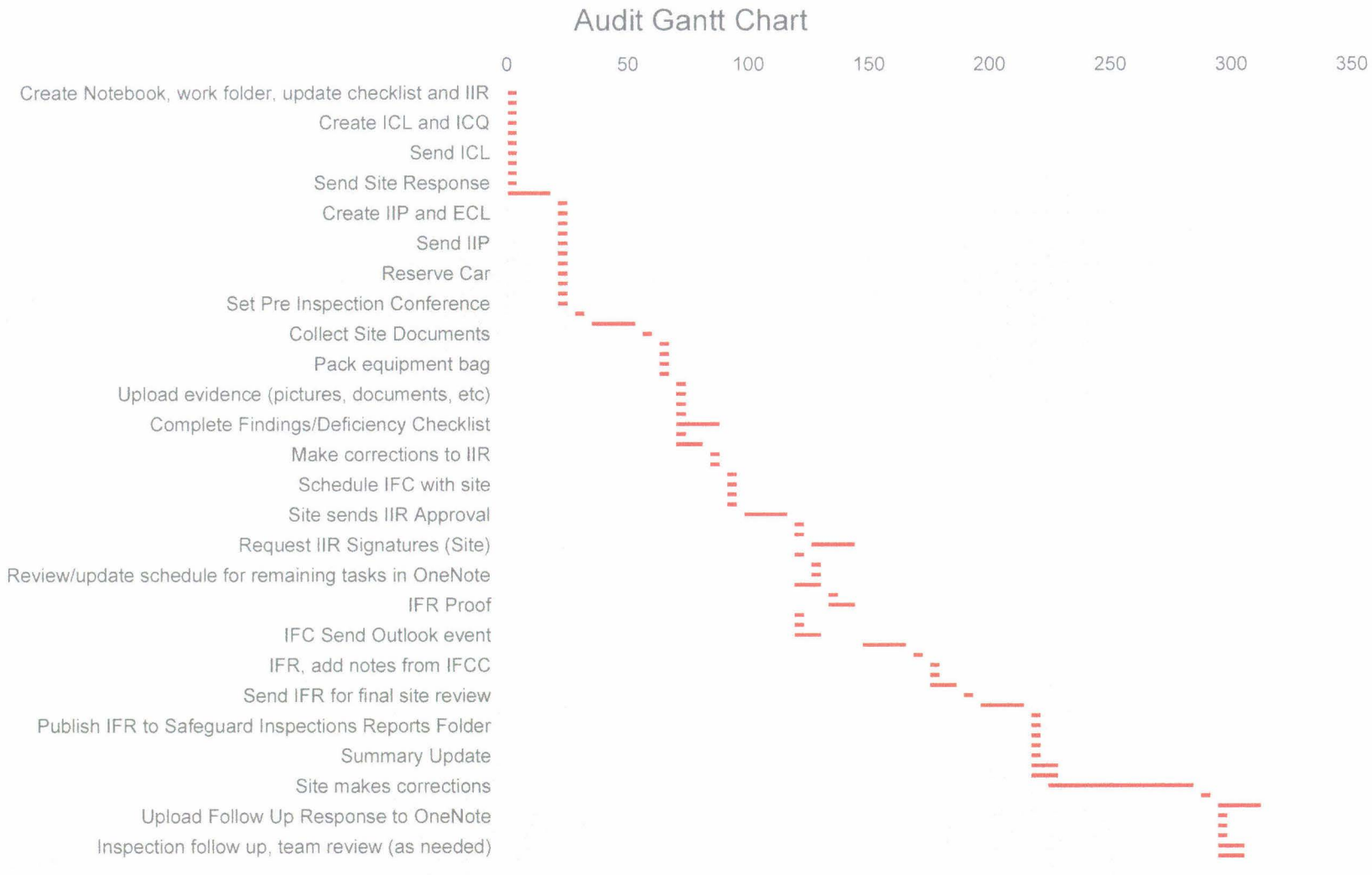
R: Responsible for doing the step

A: Accountable for the step

C: Consulted with before the step

I: Informed when the step is completed

Audit Gantt Chart



Process Flow Charts

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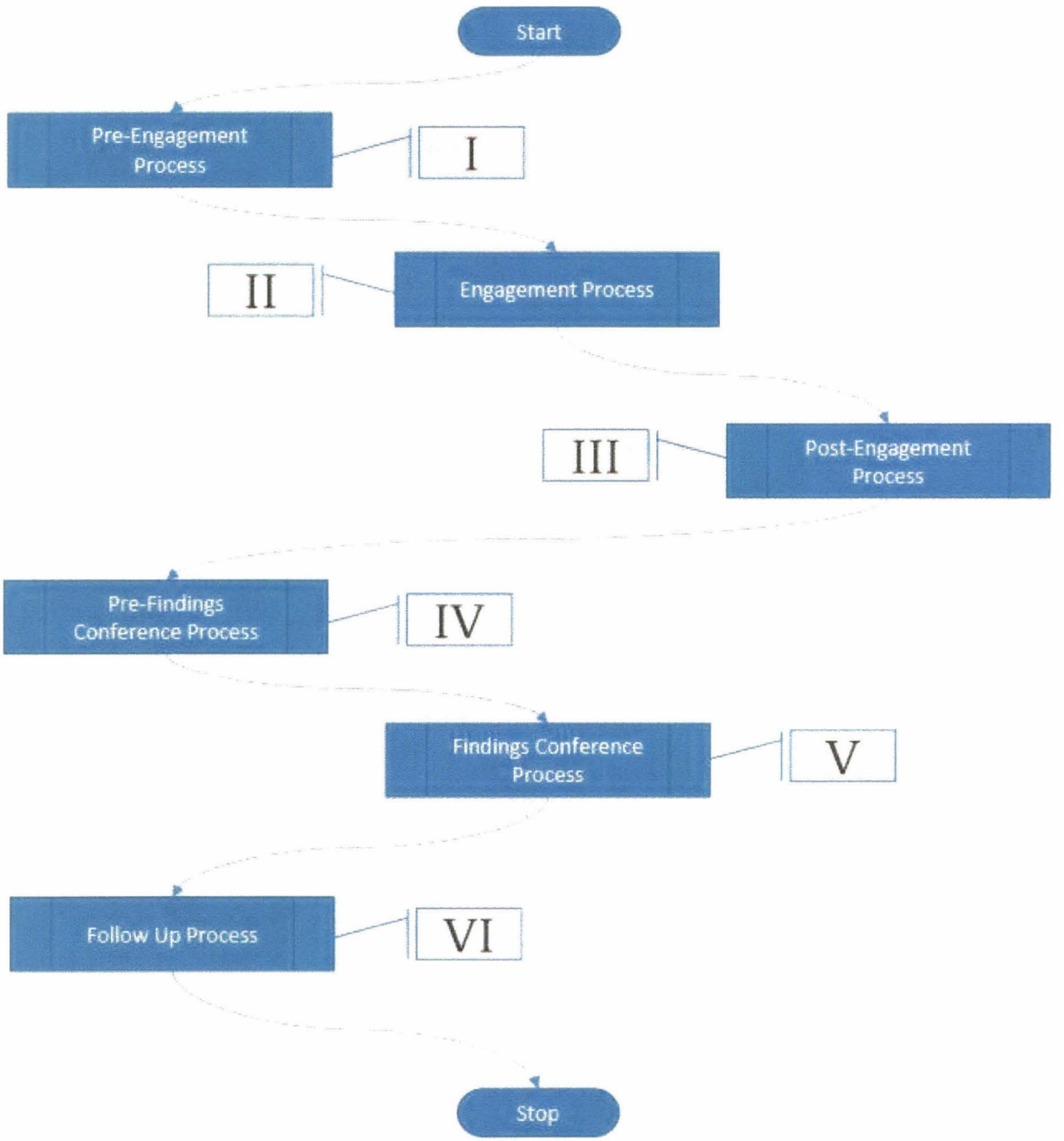
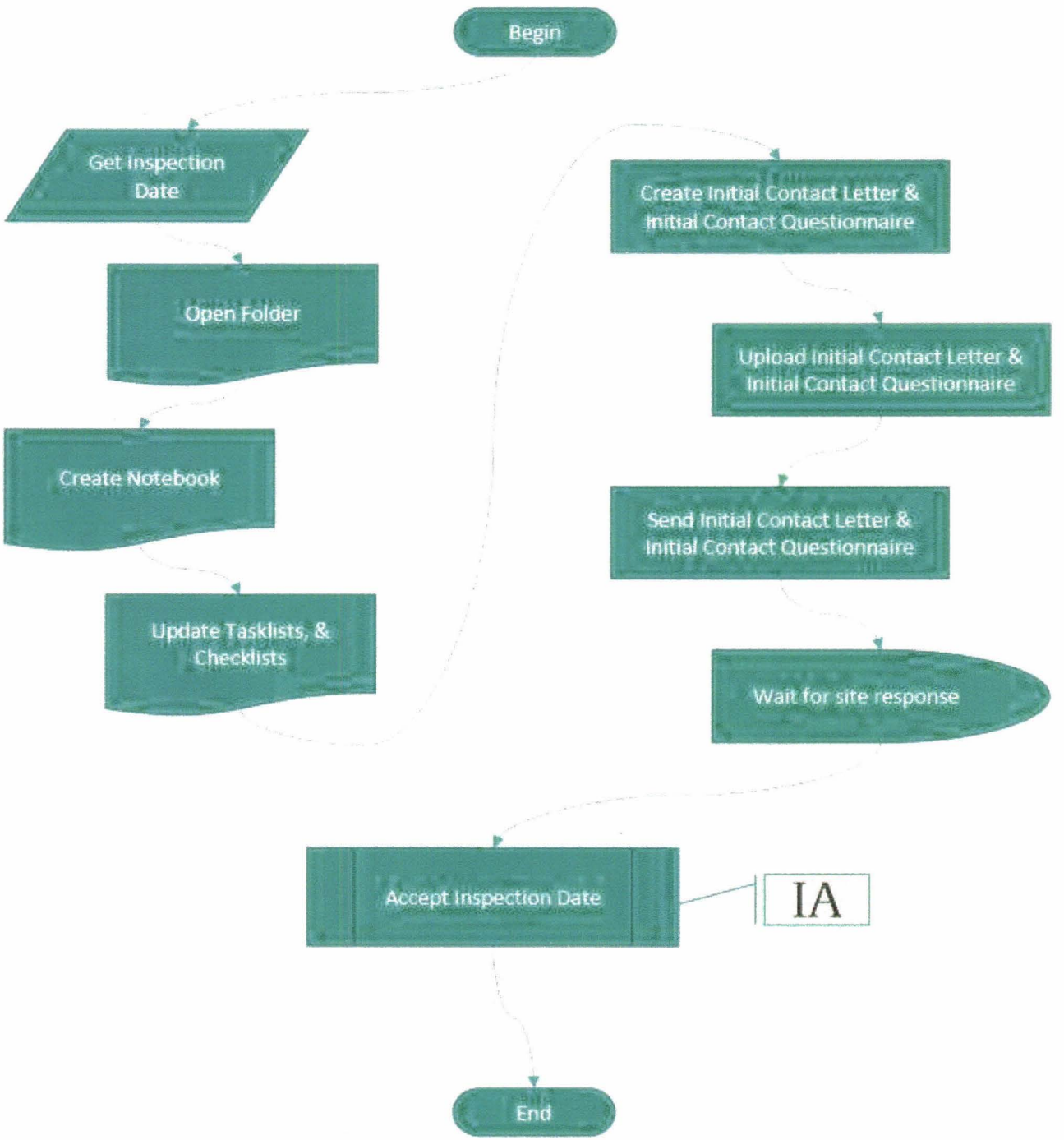
Audit Process

Overview



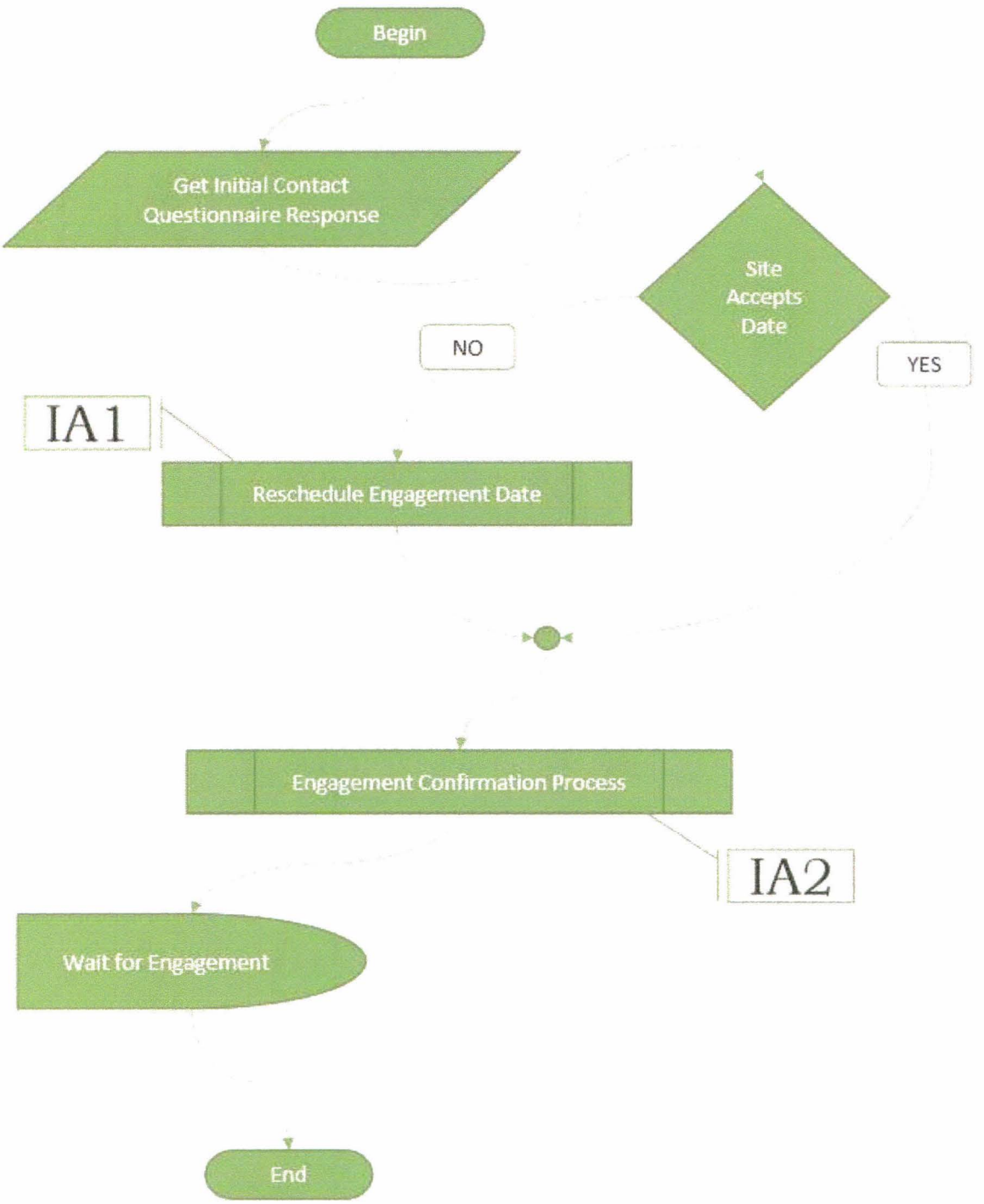
Audit Process I

Overview → Pre-Engagement



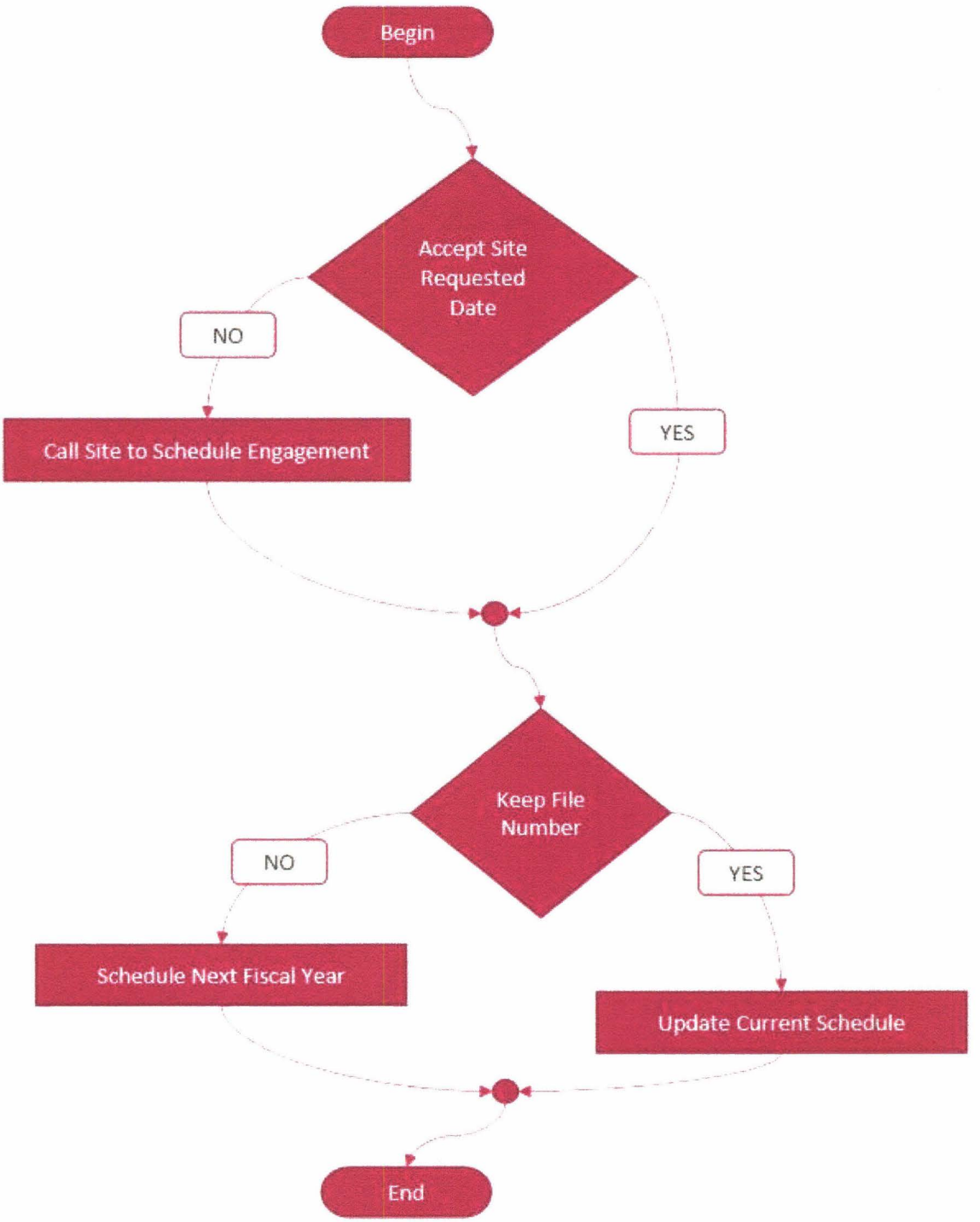
Audit Process IA

Overview → Pre-Engagement → Accept Inspection Date



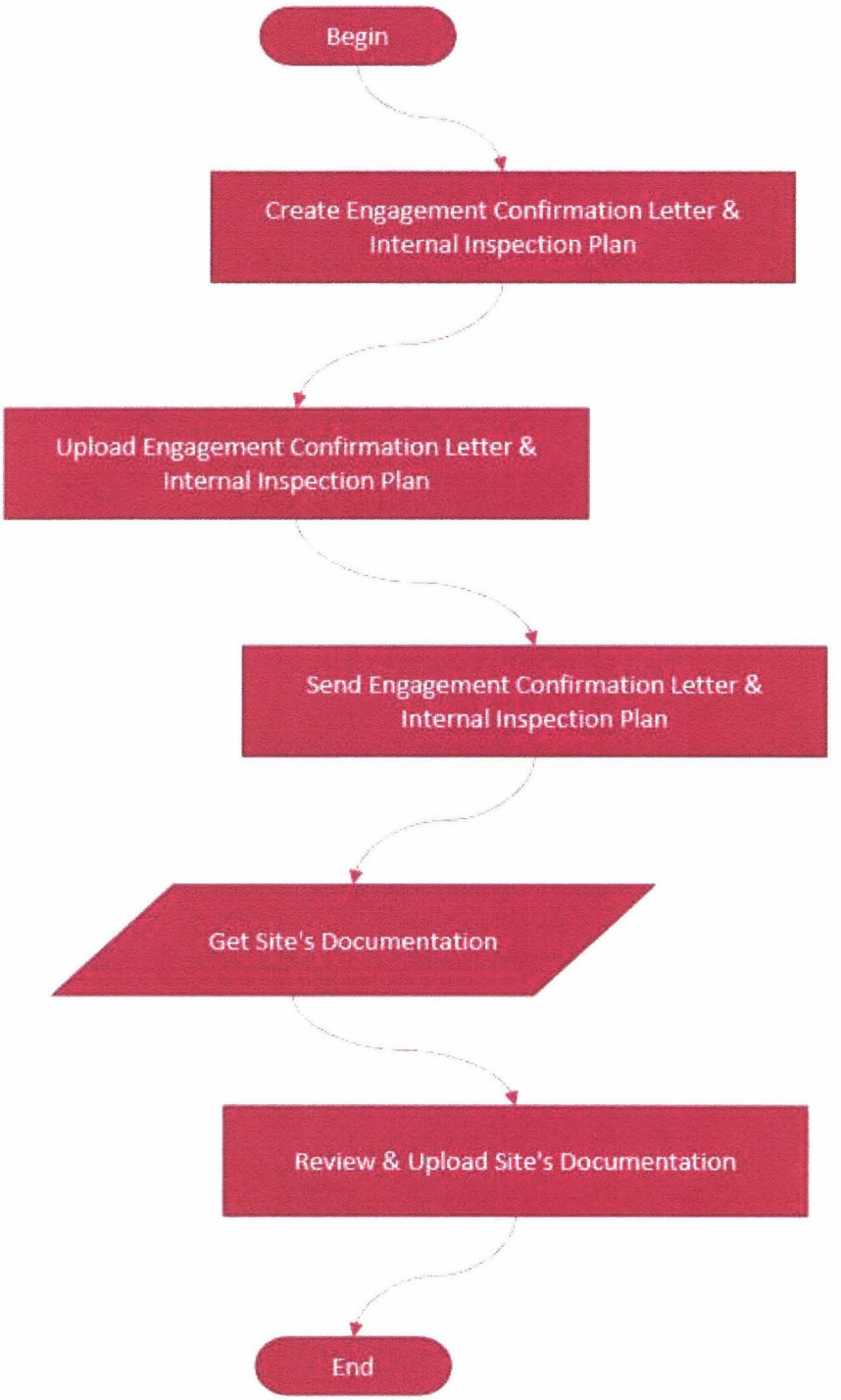
Audit Process IA1

Ove... → Pre... → Acc... → Reschedule Engagement Date



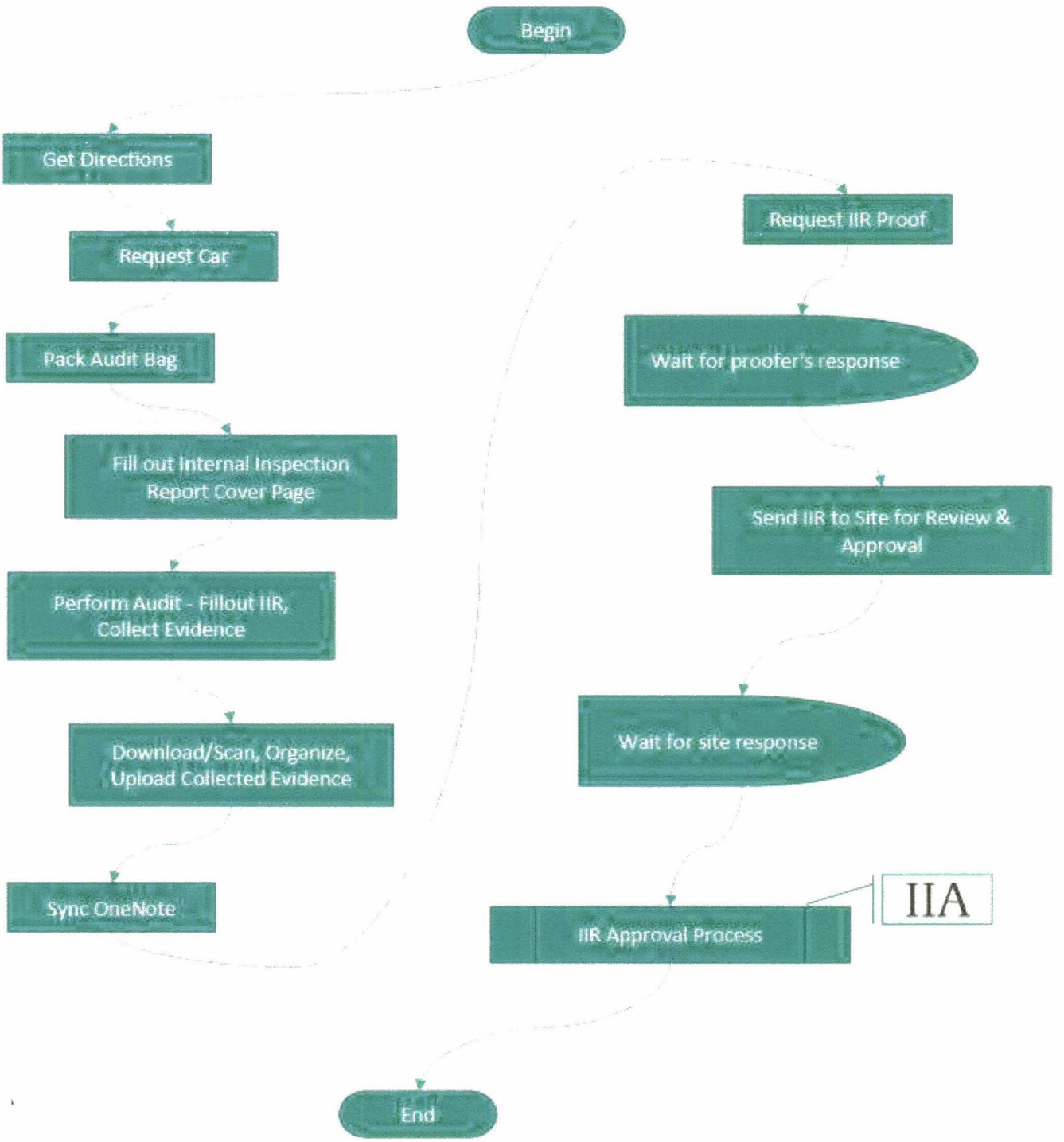
Audit Process IA2

Ove... → Pre... → Acc... → Engagement Confirmation



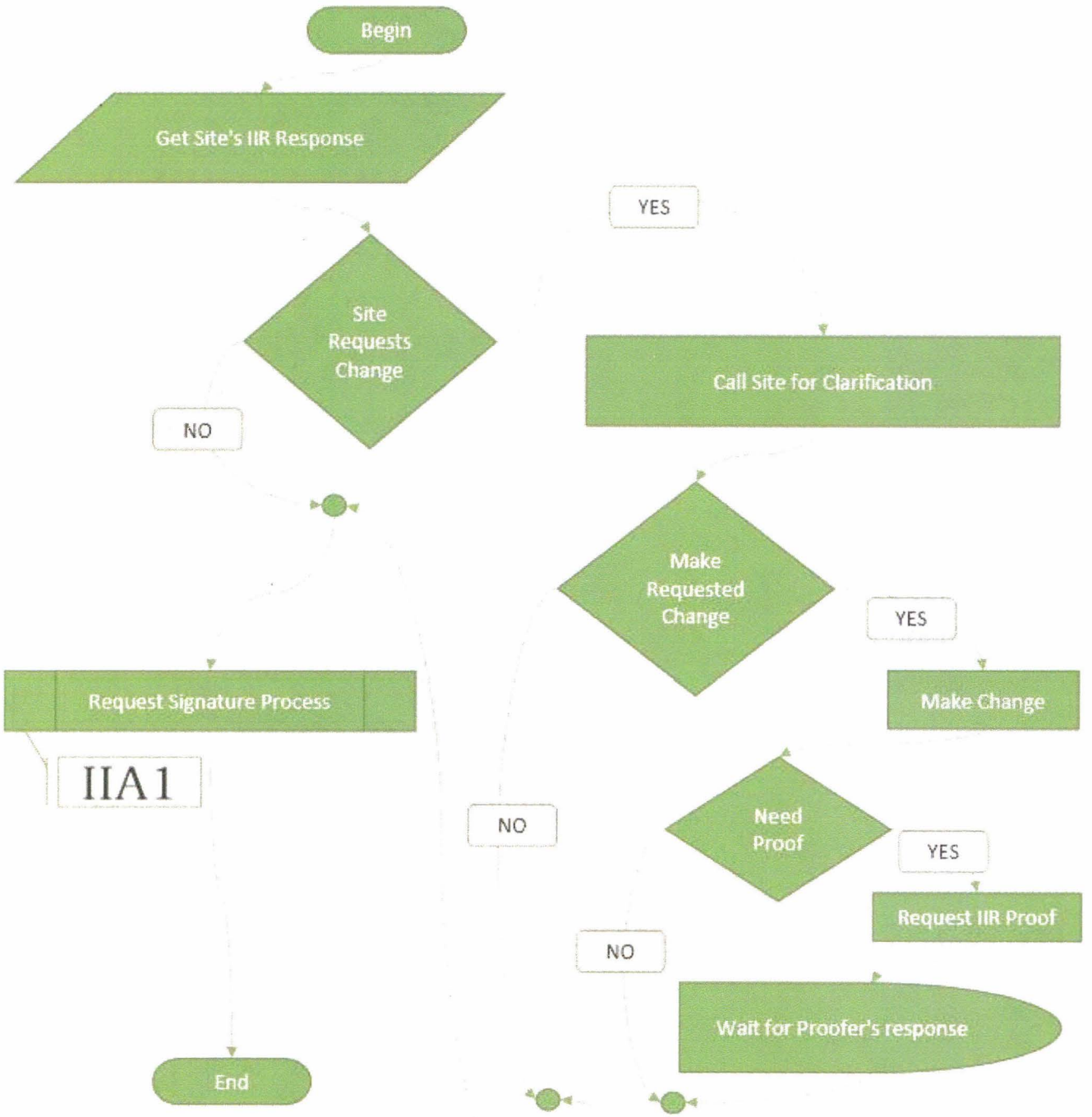
Audit Process II

Overview → Engagement

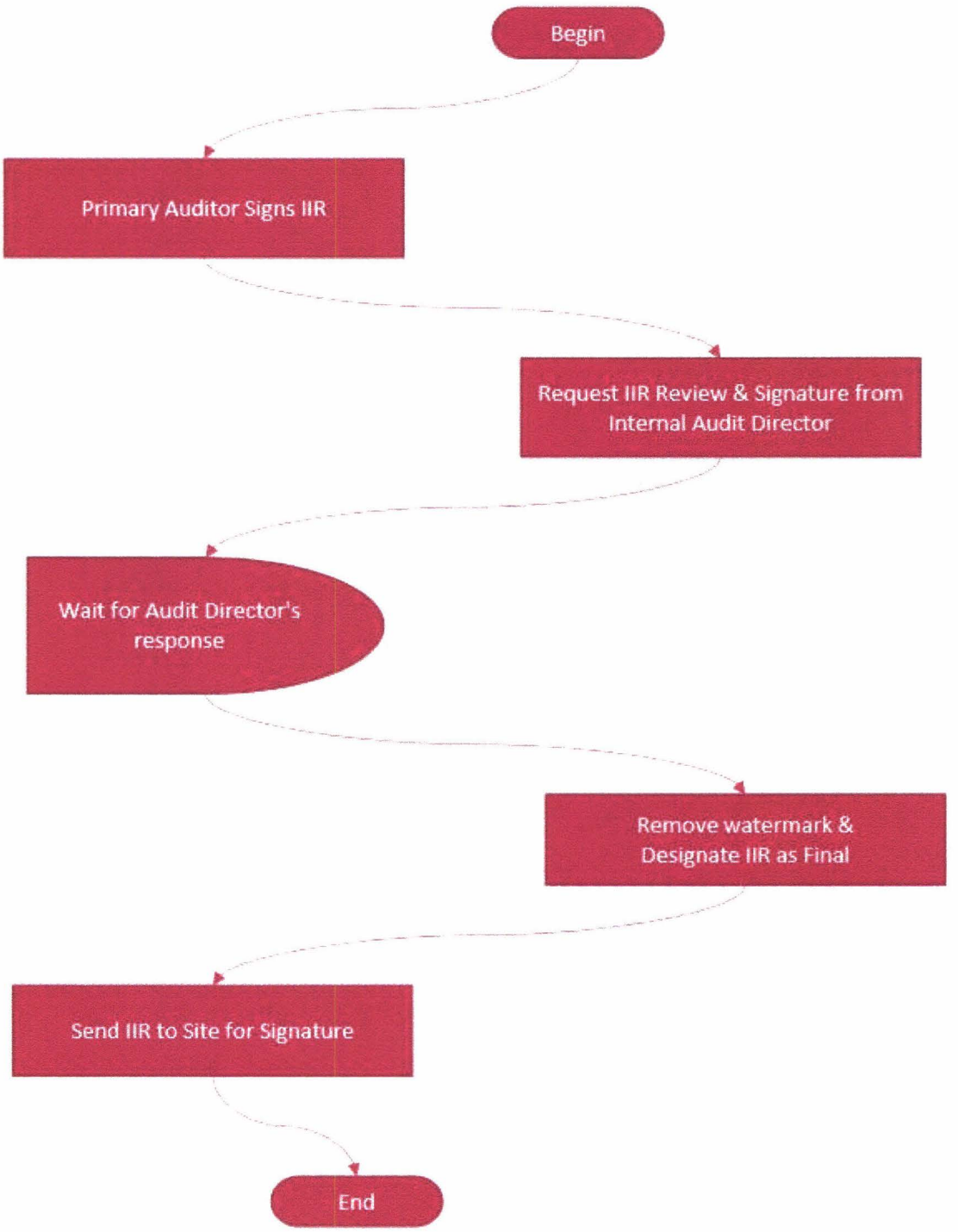


Audit Process IIA

Overview → Engagement → IIR Approval Process

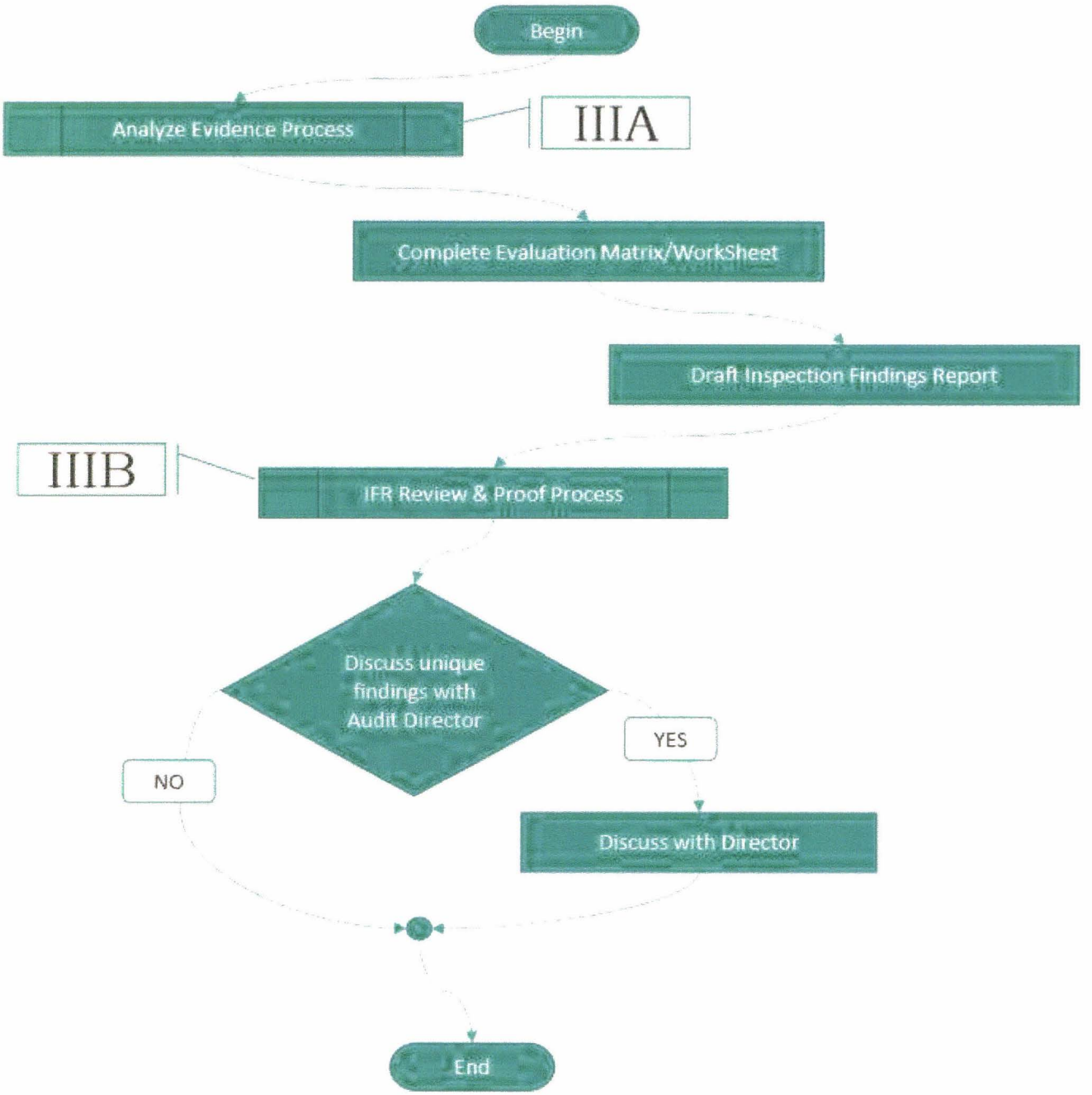


Ove... → Eng... → IIR... → Request Signature Process



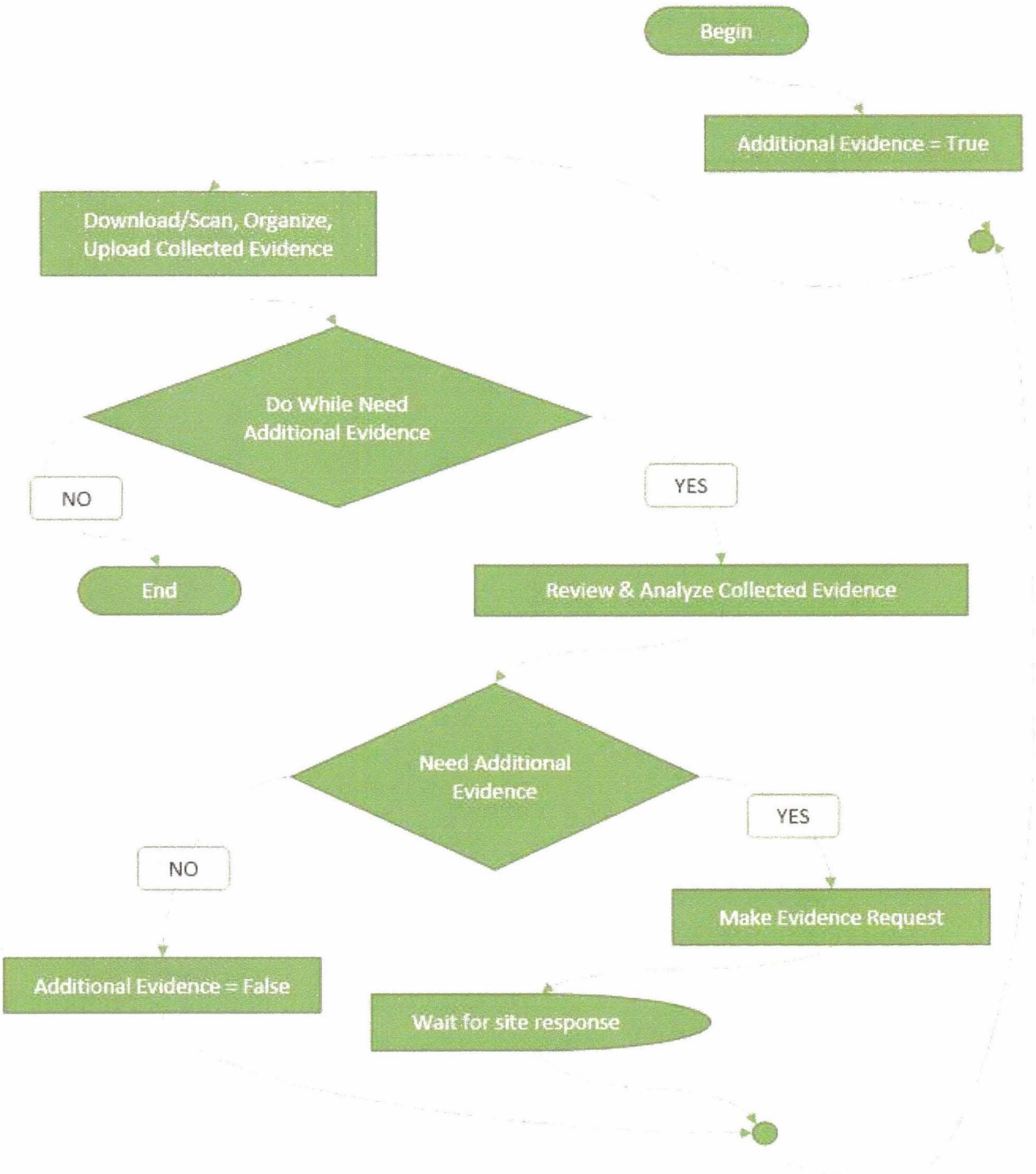
Audit Process III

Overview → Post-Engagement



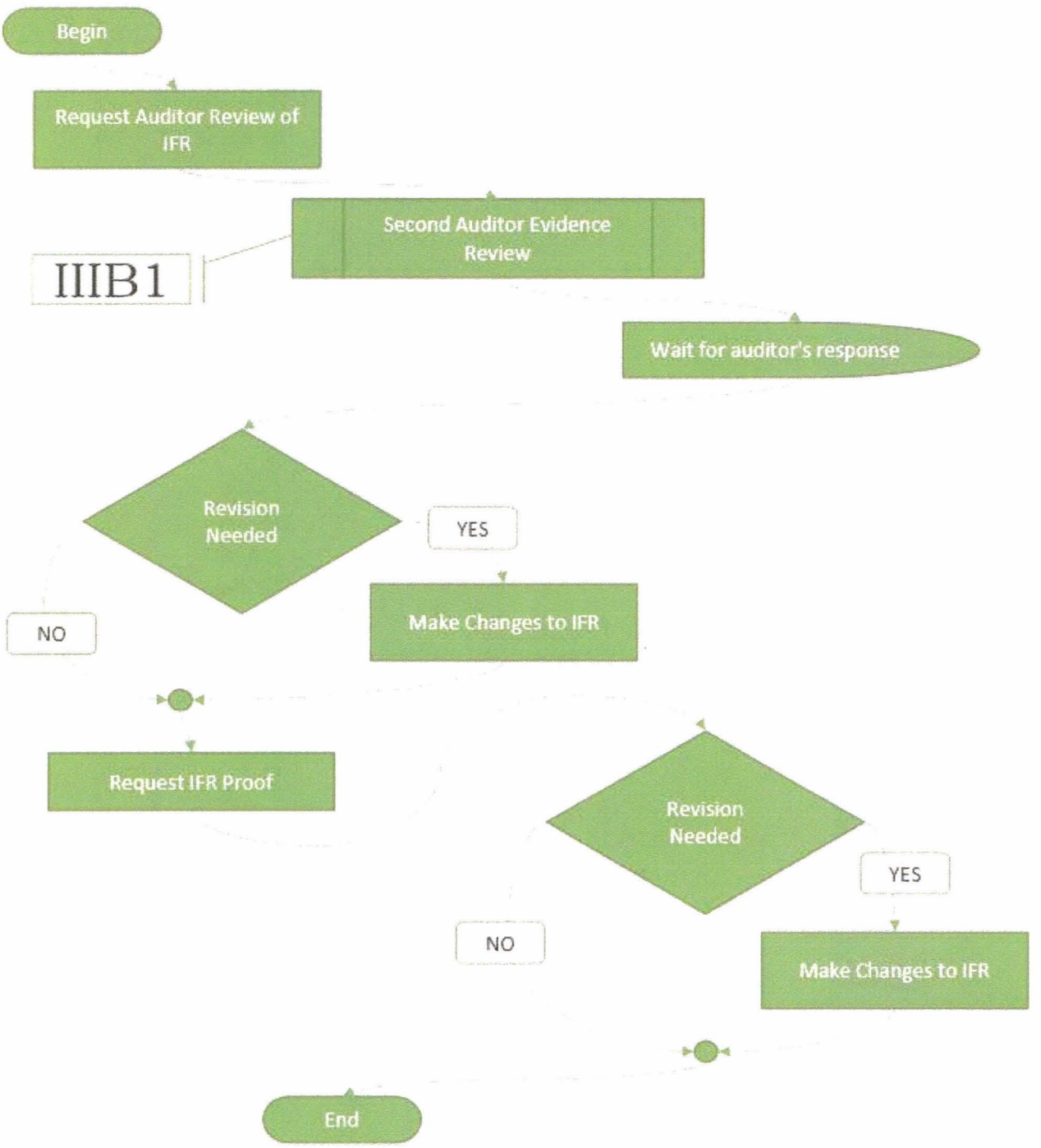
Audit Process IIIA

Overview → Post-Engagement → Analyze Evidence



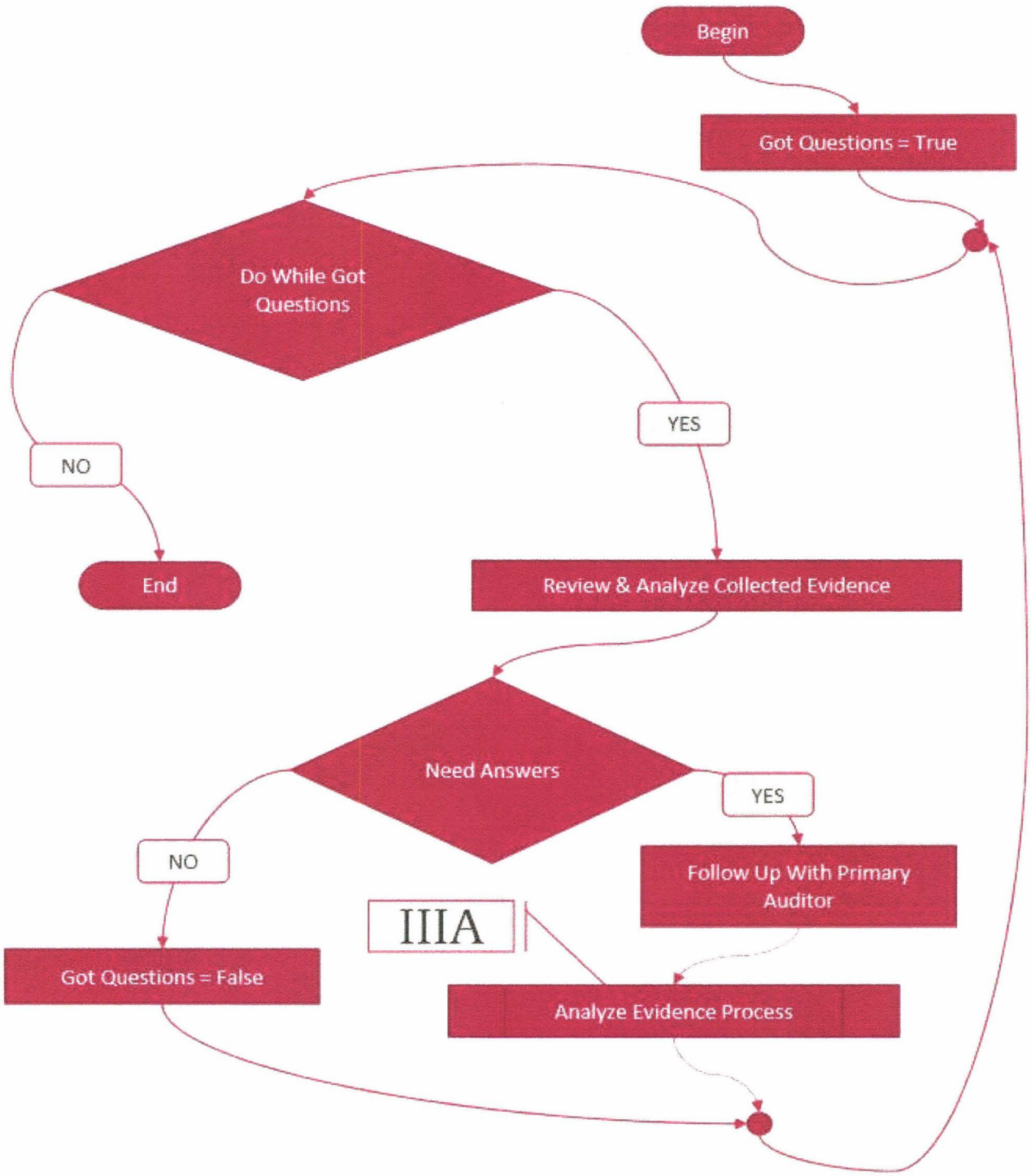
Audit Process IIIB

Overview → Post-Engagement → IFR Review & Proof

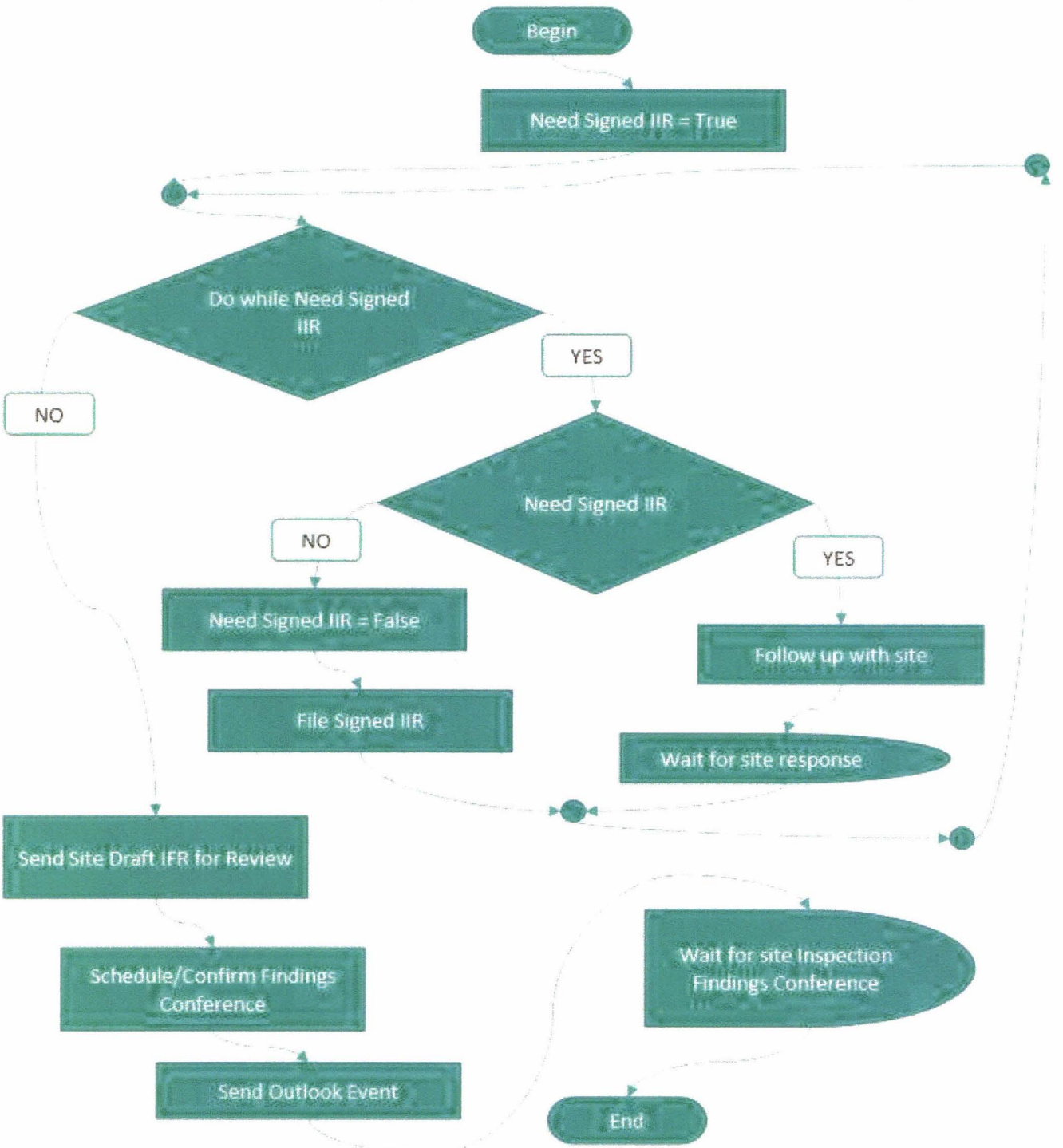


Audit Process IIIB1

Ove... → Pos... → IFR... → 2nd Auditor Evidence Review

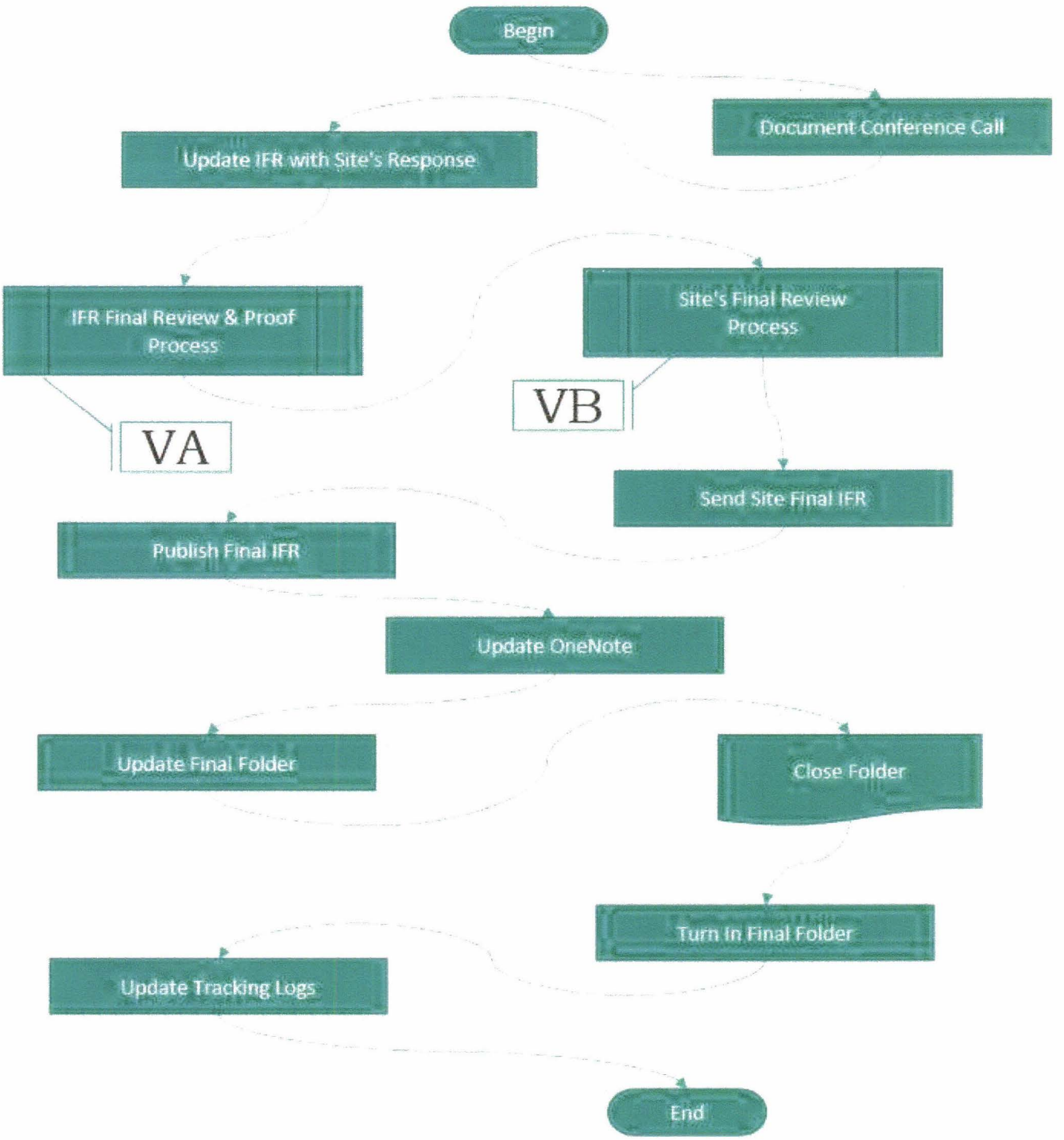


Overview → Pre-Findings Conference



Audit Process V

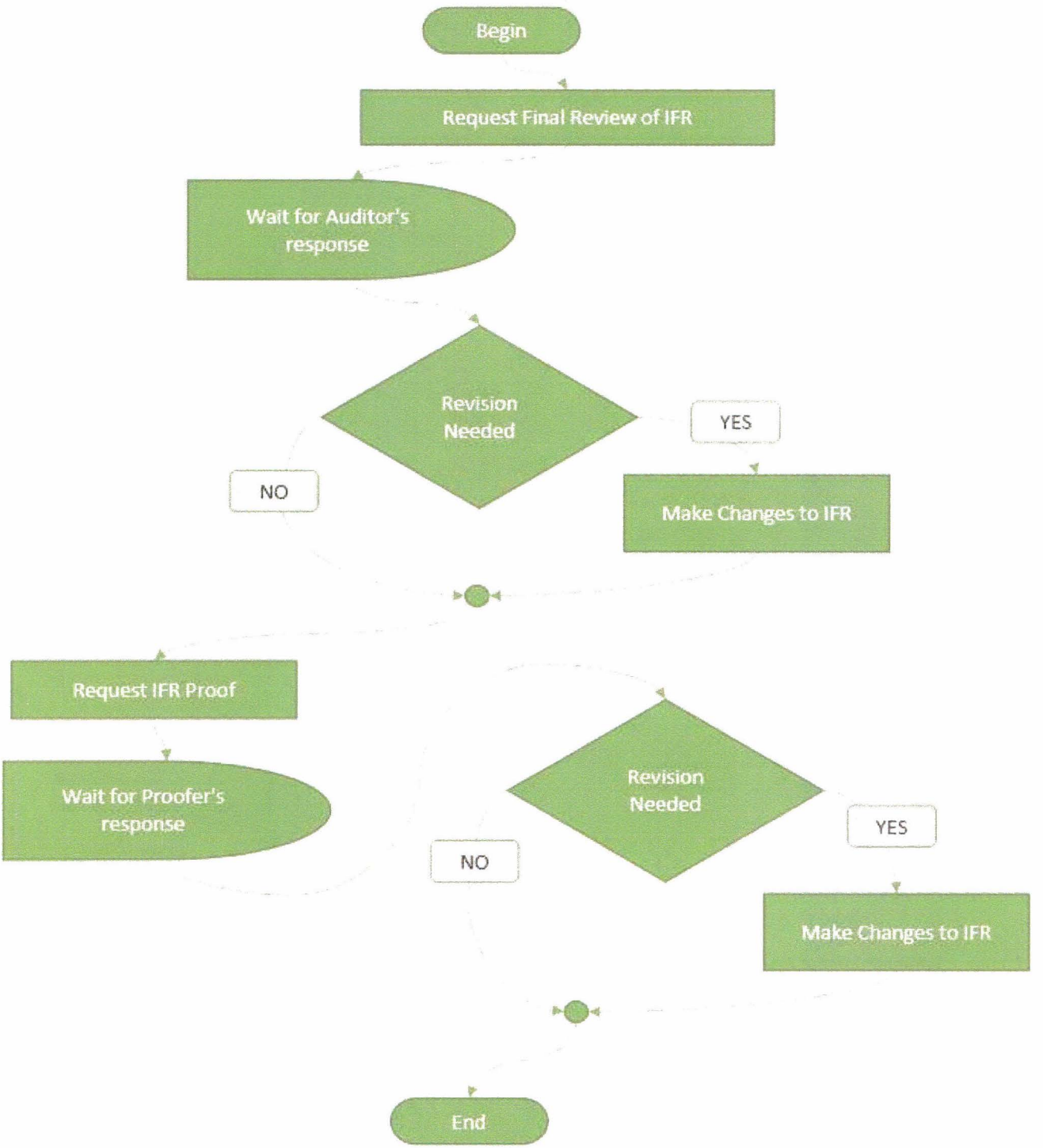
Overview → Findings Conference



Audit Process

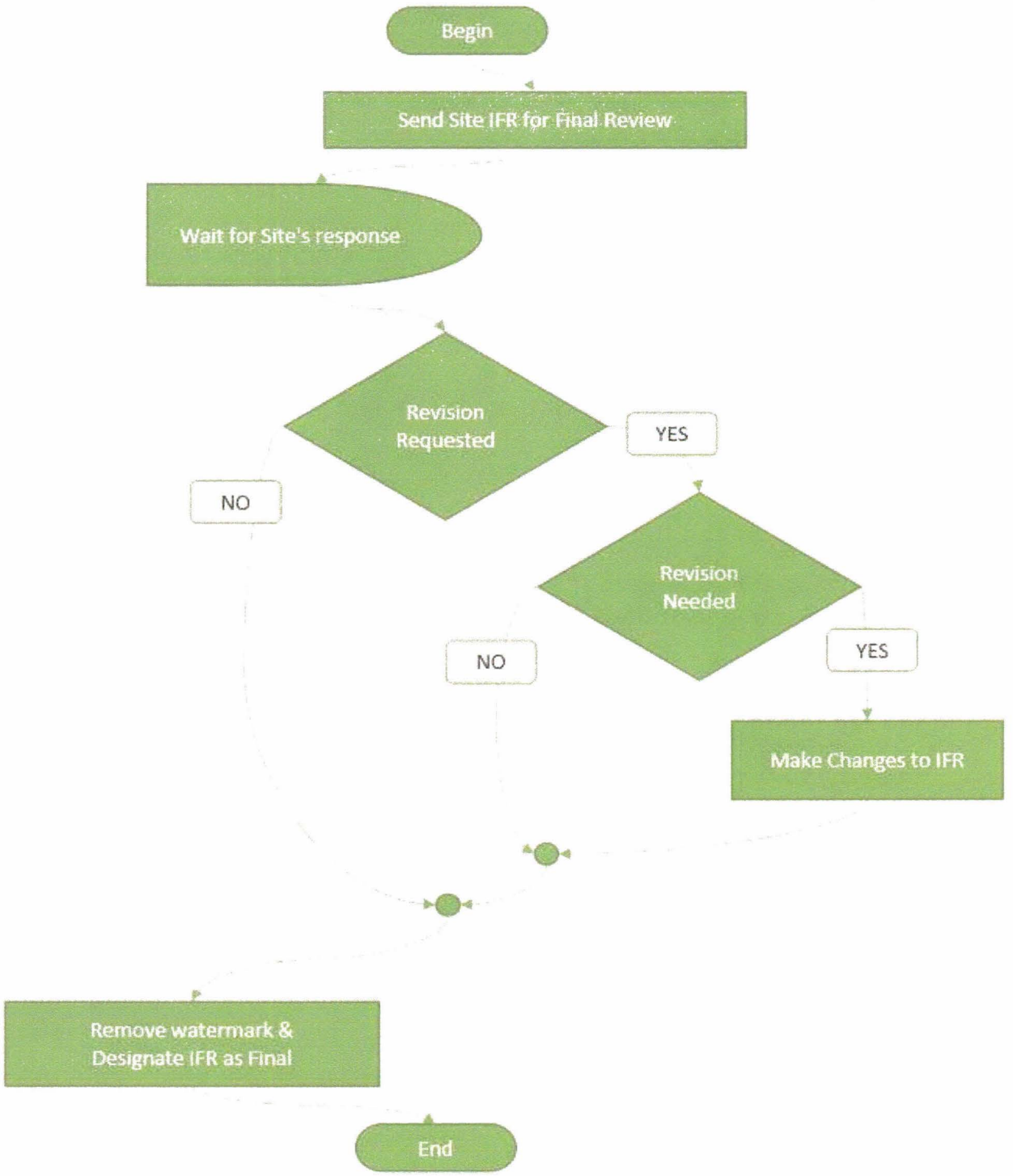
VA

Ove... → Findings Conference → IFR Final Review & Proof

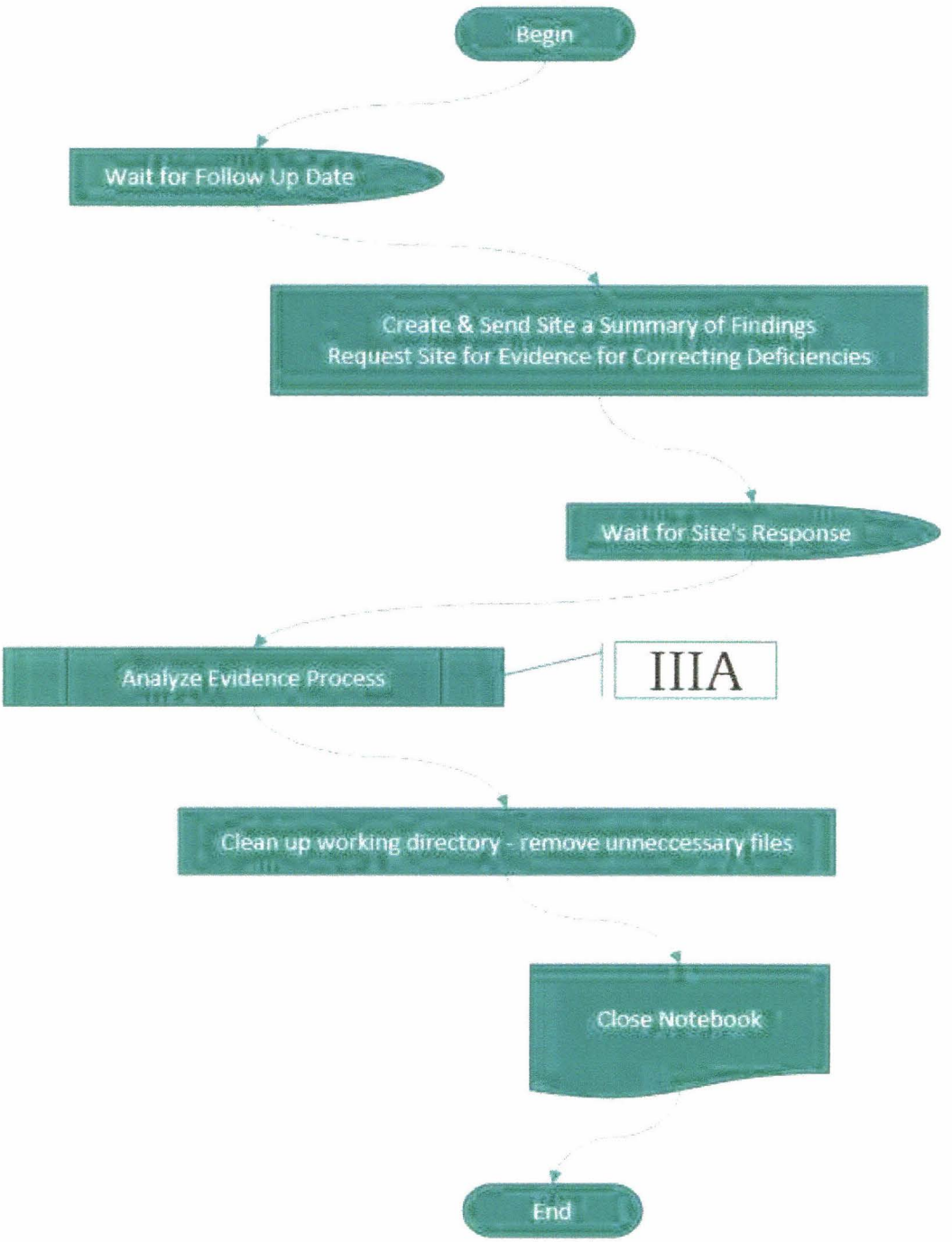


Audit Process VB

Ove... → Findings Conference → Site's Final Review

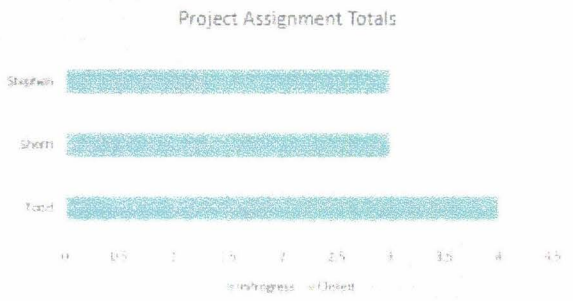


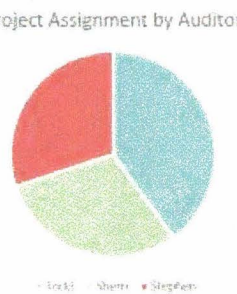
Overview → Follow Up Process



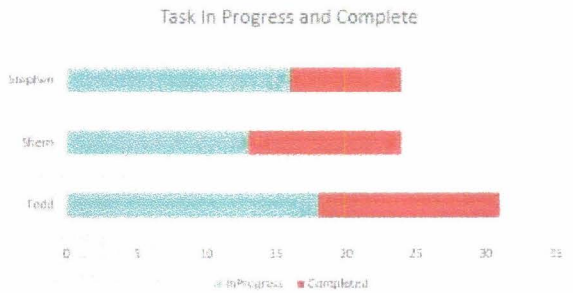
Performance and Risk Dashboard

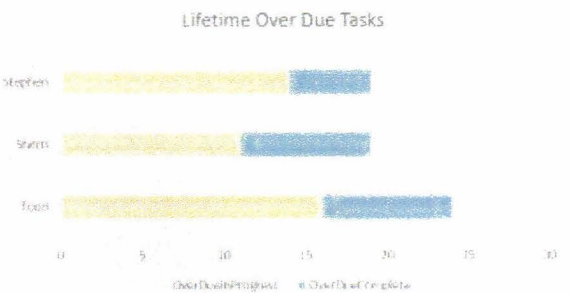
Project Overview

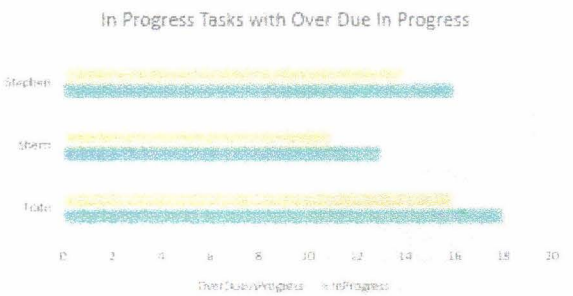




Task Overview







Milestone Overview